

AMERICAN

MAY 1948

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY



In This Issue ...

• *Technical Camera* "Mr. Sam Brown"

• *Joe Muro* "The Making of a Film"

• *South Pacific* "A New Concept in Photography"

35c

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Joe Vadala (right) and Director Martin Hoar are shown in the entrance of the Sistine Chapel.

says NBC's Joe Vadala, cameraman for the TV series, "Rome Eternal"

Du Pont Superior® 2 and Superior® 4 Motion Picture Films were used in shooting "Rome Eternal," presented on the NBC network in January. Co-produced by the National Council of Catholic Men and the National Broadcasting Company, the four half-hour films of "Rome Eternal" were shot on location in Rome by Mr. Vadala, under the direction of Martin Hoar.

As historical travelogue of the artistic, religious and cultural heritage of the city, "Rome Eternal" was largely filmed inside buildings—like St. Peter's Basilica, the Sistine Chapel, the Pantheon. In most cases, the light level was low, especially in the catacombs under St. Peter's.

"Without the combined speed and lati-

tude of Du Pont film," says Mr. Vadala, "my job would have been a lot harder. As it was, I could count on the consistent quality of the film and I could be sure of getting what I saw in the finder—under any conditions."

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Cinematographer

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ON THE COVER

LEON SHARROCK, A.S.C., (right) discusses with S. A. Seisker of Todd-AO Corp. the transport device latter designed for moving before lens of Todd-AO camera the special rectangular filters which Sharrock conceived for tinting scenes in "Back Passage." By means of small crank, held by Sharrock, camera assistant moved color filters into place as preplanned graduated color filters progressively across lens for the desired effect as scene was being shot. Story about Sharrock's innovation appears elsewhere in this issue.

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Walter Streng Elected President Of The A. S. C. For 1958-59



PRESIDENT-ELECT Walter Streng of the American Society of Cinematographers (seated) is surrounded by new Officers for 1958-1959. They are, from left, Arthur Adams, 1st V.P., Robert de Groux, Serge-Les-Arts, Robert Pines, 2nd V.P., William Daniels, 3rd V.P., Hal Mohr, 3rd V.P., and Arthur Miller, Treasurer. President, new Officers were installed April 28th.

WALTER STRENG, a director of photography who began his career in 1921 at the Famous Players-Lasky studio in Long Island, N. Y., last month was elected President of the American Society of Cinematographers.

Previously, Streng had served as the Society's Treasurer for three years and was active on the committee that planned and executed the recent re-furbishing of the Society's clubhouse in Hollywood. His untiring efforts in Society affairs and in behalf of clubhouse improvements easily made him the logical candidate for the Society's highest office this year.

One of the bones of cinematographers unattested to a major studio, Streng was one of the first cameramen to photograph films for television and probably the first to use Tri-X film in making video-films. He photographed most of the Son Erwin "Trouble With Father" TV films, and the majority of the films in "My Little Margie" motion picture. In between he also photographed TV commercials and industrial films for Roland Reed.

After production of the "Margie" series was terminated, Streng concentrated on other TV film productions preferring to remain an independent director of photography. To date, he has photographed more than 500

films for television, exclusive of commercials.

In recent years he has photographed TV commercials for Ford Motors, religious features for Family Films, and a number of black-and-white features for Regal Films, 20th Century-Fox affiliate. His most notable recent photographic achievement was the filming — all on actual leaders — of Andrew Stone's "Cry Terror." (See American Cinematography for October, 1957, Pg. 650).

Streng was one of the founders of Local 644, I.A.T.S.E., New York City, and was elected to the Local's Vice-presidency in 1938. The following year he was elected President of the Local, an office he held until 1934, when he moved to Hollywood.

He has two award nominations to his credit. His photography of the "Margie" series was nominated for an achievement award in 1954 by members of the Academy of Television Arts and Sciences. He was also among the "Oscar" nominees in 1956 when members of the Academy of Motion Picture Arts and Sciences voted "Stage Coach to Fury," which he photographed in black-and-white for Regal Films, as one of five nominees for Achievement in Photography.

In the election which named Streng
(Continued on Page 238)

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INDUSTRY NEWS

*News briefs of
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RCA's BARTON KNEIZER, President of the SMPTE, speaks on changing industry trends at convention luncheon.

Industrial and Instrumentation photography, latest developments in film laboratory practices, video tape recording, a novel microphone, and a controlled double-exposure method for measuring movie camera steadiness are just a few of the important topics that came in for discussion at the 10th Semi-annual Convention of the Society of Motion Picture and Television Engineers in Los Angeles last month.

Eastman Kodak Company engineers and technical men read a total of eight papers relating to motion pictures. These covered the new Eastman Ektachrome 16mm reversal color film and methods for processing it; description of a professional 35mm picture review room; the development of a dust-free exhaust hood for film cleaning operations; a method for calculating grading information directly from negative density area; a two-speed drive for confusion motion picture printers; methods for prolonging life of motion picture release prints; and the method for measuring steadiness in motion picture cameras, previously mentioned.

An outstanding feature of the convention was the extensive display of equipment, said to be the largest and best arranged of any of the Society's exhibits thus far.

Parcial Eduart, A.S.C., head of the Props and Background Projection department at Paramount's Hollywood studios, has been elected to the Board of Governors of the Academy of Motion Picture Arts and Sciences. Eduart, along with incumbent Hal Mohr, A.S.C., will represent the industry's cinematographers. Thirteen other Board members were also elected—all for two-year terms.

Dimensional Pictures Corp., whose Hollywood headquarters are at Paramount, recently announced perfection of 3-D for TV and has scheduled its first TV stereo film for production. New process requires viewers to wear glasses same as for 3-D movies in theaters. Transmission of the film appears to be simple, employing a single miniature 16mm projector to throw picture on a screen about two-feet wide at about six feet distant.

Key component of process is said to be a special lens developed by optical engineer Charles Laughberg of Tucson, New Jersey.

"Cinema 160" is label put on latest super wide-screen process now under going development in Hollywood. System uses standard 35mm film in a camera of special design. Only a single projector is used to throw picture in visual angle of 160°, eliminating parallax and the attendant problems of matching densities and avoiding lines of demarcation. Initial production on process is scheduled to go before cameras early this month, according to Frank Caldwell and Richard Beaumee, co-developers.

Ordinary fluorescent tubes, previously valued to step-by illumination caption on the order of the Coliseum system have been successfully used by cinematographer William Mellor, A.S.C., in filming interiors at 20th Century-Fox for "The Diary of Anne Frank."

System, developed jointly by Mellor, set electrician Homer Planette, and Sol Halprin, head of studio Camera Department, is said to produce softer shadows and more natural room lighting than conventional studio lights.

In Mellor's initial try, 18-inch 60-watt fluorescent tubes were mounted in pairs behind ceiling beams, and were the only AC powered lights on the set. The lighting is adaptable to color photography, according to Mellor.

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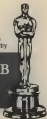
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Tele-lens Support

Karl Heitz, Inc., 480 Lexington Ave., New York 17, N. Y., announces the kinopix cradle-support for long-focus motion picture camera lenses. Cradle is threaded to fit any standard tripod or dolly. Finished in dull black hammerlock, it will support lenses from 100mm

to 500mm in focal length. Lents for \$99.00.

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S.O.S. Cinema Supply Co., 602 West 52nd St., New York, N. Y., announces a new low cost Tel-Animation suitable for animation departments of small film producers, TV stations, educational institutions, etc.

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(Continued on Page 270)

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Continued from Page 349

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(Continued on Page 116)

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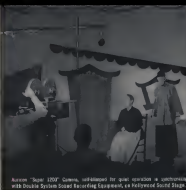
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**CINE EQUIPMENT
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TECHNICAL QUESTIONS & ANSWERS

Conducted by Walter Strenge, A.S.C.



Q Comments relating to cinematography or other phases of film production are invited from readers and will be answered by letter by Walter Strenge or by other qualified members of the American Society of Cinematographers. Questions and answers considered of general interest will appear in this column.—E.E.

Q What is the color temperature of matchlight? What color gelatin filter placed over a lamp rated at 3200° K will simulate the effect of matchlight? Will an MT-2 or similar filter placed used over a window convert the daylight coming through to 3200° K to give a satisfactory matchlight effect?—E. F., Blacksburg, Va.

Answer: The color temperature of matchlight ranges between 1700° and 1900° K. The MT-2 filter will convert sunlight (5000° K) to 3200° K. Two thicknesses of the MT-2 filter gelatin, therefore, will almost exactly reduce the color temperature of the window light to that of matchlight.—Karl Freund, A.S.C.

Q I was taught to cut A-B-B rolls, using black and yellow leaders—black for open or fading shutter, and yellow for closed shutter. In our current work, lots doing our work require black leaders, with stickers used to indicate shutter fades. Is the black-and-yellow leader system obsolete, or only used by certain labs?—E. F., Blacksburg, Va.

Answer: We are unfamiliar with the leader system you describe and it must be confined to a very few laboratories. However, black and yellow leaders are still used in film cutting, but not as described in your question.—Ted Fogelmann, A.S.C. Associate.

Q As an advanced amateur, I am interested in improving my technique and knowledge of 16mm color photography. What textbooks do you recommend? I plan to use magnetic sound stripping on all my productions. Where can I find books or text outlining procedure of magnetic sound recording, including methods of script writing for narration. I use a Bell & Howell 202 magnetic-optical sound projector.—R. F., Portland, Ore.

Answer: As a former instructor in cinematography, in my opinion no "text books" as such are available that will give you the instruction you hope for. Like any art, cinematography as well as sound recording involves the application of basic principles, and these can be taught. But beyond this, the individual must acquire, through actual experience, the special knacks of using his knowledge in meeting new conditions, problems or emergencies. He is really improving all the time, for no two sets of conditions are identical. Working for or with other cameramen over a period of time is the best way to learn the "tricks of the trade." Meanwhile, the aspiring cameraman can find much to add to his basic knowledge from books, trade magazines, collateral sources—and, of course, from this publication.

The Bell & Howell Co. is forwarding you a booklet on magnetic sound, which will be helpful. Eastman Kodak Co. is currently preparing a data book on the production of films, using magnetic equipment. Their recently published "Industrial Motion Pictures" covers all the points raised in your questions, and is recommended reading. The book is expensive and available from most Kodak dealers.—Ralph Wooley, A.S.C.

Q What is the recommended screen brightness for projection of 16mm and 35mm films?—E. E., Tacoma, Wash.

Answer: The accepted screen brightness for studio projection room screens varies between 12 and 15 foot candles. While 12 foot candles is considered ideal for theatres, this often falls as low as 6 or 7 foot candles. As screen brightness for 16mm films should be the same as for 35mm, the above figures will give you something to go by. We know of no standard established for 16mm projection.—Walter Strenge, A.S.C.

Q How can I produce moving images in multiple within a single film frame, such as a steam whistle blowing, a bell ringing, a wheel turning, etc.—all visible at the same time and changing

(Continued on Page 288)



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QUESTIONS & ANSWERS

(Continued From Page 265)

positions up the screen?—E. E. S., Tacoma, Wash.

Answer: The special effect you describe is difficult to produce satisfactorily without the aid of an optical printer. As we understand it, you want the three different objects—whistle, bell, and wheel—to appear simultaneously in the screen but changing positions in a revolving motion. To achieve such an effect, it is necessary to shoot each object separately, then have them combined in the effect you desire by a laboratory equipped with an optical printer.

There is an optical effects gadget available from Camera Equipment Co., New York, which is attached to the camera lens and rotated to achieve an effect similar to that you describe, but only with a single object. Of course, using this same device, you could produce an effect similar to that you desire simply by double- and triple-exposing the various objects, one after the other. —Joe Henry, Associate Editor.

Q I am considering a previously soft-certified developing tank for processing film, in which the film travels from one spool to another as it passes through the developer solution. It would seem to me that, with both spools moving into the solution, a certain amount of residue developer would creep down between the layers of wound film, resulting in uneven development.

Furthermore, would you the film be unevenly developed? Also, what method is used for drying film processed with this type equipment?—F. J. B., Sydney, Australia.

Answer: While it is true that a certain amount of solution is retained on the film surfaces after it has passed through the developer and then wound on the take-up spool, pre-hardening and thorough rinsing after development seems to obviate the danger and insure uniform development.

Drying of films thus processed is usually done on a small reel of the "fish-bone" type which probably can be purchased from the manufacturer of the developing tank.—S. Rose, Micro Record Corp.

Q Since exposure readings can be taken from subject position or from camera position, is there a measurable difference in actual light transmission to the film, due to the inverse square law—i.e., if I light a subject five feet away and another fifty feet distant with the same density and read foot candles at the position of subject, will both subjects photograph with the same density?—E. E. F., Blacksburg, Va.

Answer: Yes.—Stanley Hershey, A.S.C.

(Continued on Page 304)

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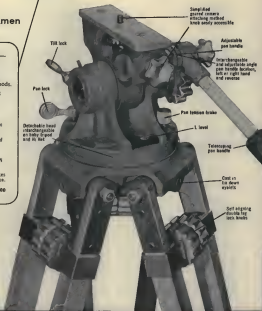
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News briefs about the A.S.C.,
its members, and important
industry personalities



EDGAR BERGEN, aided by his ventriloquist "Ella Khrorko," officiated at installation ceremonies at the A.S.C. last month. With an all-male audience, Ella had a ball!



PRESIDENT-ELECT Walter Strange (left) accepts presidential badge of office from outgoing president Barnett Guffey. Strange has been a cameraman since 1934.



IN COMMEMORATION of his term as President of the A.S.C., Barnett Guffey is presented with mounted pearl by his successor, Jald Guffey. "A worthy man succeeds me."



IN A.S.C. TRADITION, plaques placed of outgoing President is hung on A.S.C.'s "Wall of Fame." Following presentation by President-elect Walter Strange.



AMONG HONORED GUESTS were SMPTE Convention Arthur Thomas (Thomas I. Baker), left, Joe Toney, with cigar and big smile, head of SDC Cinema Supply, and Gene Levy of Camera Equipment Company at Toney's right. Getting all-come, right foreground, is A.C.'s editor Arthur Gervin.

A CHAMPAGNE dinner and the delightful banter of Edgar Bergen and his famous frustrated doll, Ella Khrorko, got off to a flying start the new regime of President-elect Walter Strange at the monthly dinner of the American Society of Cinematographers April 28th. More than 200 guests including some SMPTE conventioners, were on hand to witness installation of Strange as President and six others as Officers. Bergen, as master of ceremonies, installed the officers following a lively half-hour of fun with Ella which concluded with her recognition of one of the cameramen present as an "old flake" of hers.

CINEMATOGRAPHER and investor Earl Frowd, A.S.C. (left), head of Photo Research Corporation, Hollywood, gives briefest demonstration of his new Spectra motionless closed circuit TV camera to cinematographer William Daniels, A.S.C. (right), and screen director Rudolph Mate, A.S.C. Attached to standard Mitchell finder, mounted atop tripod at left, camera is used here as an electronic viewfinder. Found points to viewer which picture same pickup of finder fully parallel-converted.



Photographic Assignments

Who, where and what the industry's cameramen were shooting last month.

*Asterisks indicate theatrical and television film production.

ALLIED ARTISTS

- JOHN MURPHY, ASC, "Legion of the Damned" with Bill Williams and Don Rickard. Tooty Brooks, director.

AMERICAN NATIONAL

- MONROE ARNOLD, "Sea Hunt" (20-TV) with Lloyd Bridges. Various directors. "Target" (20-TV) with Adolphe Menjou. Otto Lang, director.

- CURT FUTTER, "Tombstone Territory" (20-TV) with Pat Conway. Various directors. "Sea Hunt" (20-TV) with Lloyd Bridges. Monroe Arnold, director.

- BOB HOFFMAN, "Tombstone Territory" (20-TV) with Pat Conway. Various directors. "Target" (20-TV) with Adolphe Menjou. Henry Koster, director.

CALIFORNIA STUDIOS

- HAL MCALPIN, Pacific Gas & Electric commercial (Gross-Kramer Productions) Paul Low, director.

- FLEET SOUTHWORTH, "Hans Gas Will Tell" (Fleischer Productions) Various directors.

CASCADE PICTURES

- EDWARD BRIDGES, ASC, "White Rain, Max Factor and TWA Commercial" George Selig, director.

COLUMBIA

- GERT ANDERICK, ASC, "Shirley Temple's Storybook" (Screen Gems) with Shirley Temple. Various directors.

- LOUIS BULLARD, ASC, "City of Fear" (Orbit Productions) with Victor Edwards and John Archer. Irving Lerner, director.

- BENJAMIN GIFFIN, ASC, "Guns and Red Sky" (Pilot, Screen Gems) Andrea McCullough, director.

- JAMES WOOD BOWEN, ASC, "Bell, Book and Candle" (Fluorion Productions) with James Stewart, Kim Novak and Jack Lemmon. Richard Quast, director.

- FRED JACOBSON, "Adventures of Rin Tin Tin" (Screen Gems) with Lee Aaker and James Brown. Wes Brundage, director.

- CHARLES LANTIER, ASC, "The Last Hurrah" with Spencer Tracy and Jeffery Hester. John Ford, director.

- TED MOORE, "The Man Inside" (Warwick Productions) shooting in Spain with Jack Palance and Anita Ekberg. John Gibbon, director.

- TED SCHULTZ, "The Clock Without a Face" (Shooting in London) with Jack Hawkins and Col. Todd. André De Toth, director.

- LOTTORINO WORTZ, ASC, "Jefferson Drum" (Screen Gems) with Jeff Richards. Various directors.

WALT DISNEY

- WYMON BELLE, ASC, "Dorothy Goes to the Little People" (Walt Disney Productions for Eason Wall) with Albert Sorensen and Matt Moore. Robert Stevenson, director.

FRANCHISE STUDIOS

- VIRGE MILLER, ASC, "You Bet Your Life" with Concha Mera. Robert Dunn, director.

FOX WESTERN AVE

- LEONARD ARNOLD, ASC, "Blow to Marty's Mind" (Various Directors) Various directors.

- FRANK BROWN, ASC, "The Perry Mason Show" with Raymond Burr. Various directors.

- CHARLES VAN ENGER, ASC, "Man Without a Gun" with Rex Reason. Various directors.

GENERAL SERVICE

- ARTHUR DALZIEL, "50 Pepsin Plan" (Fleisch McCordie Productions) Maurice Gendreau, director.



AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1918, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture and TV film studios. Its membership also includes cinematographers in foreign lands. Membership is by invitation only.

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- HENRY SMITH, ASC, "Palm Journal" (Advanced Productions) Leon Berlin, director.

- JAMES VAN TREES, ASC, "Teresa & Allen Shaw" (McCordie Productions) with Bonnie Allen and George Burns. Rod Amateau, director.

- HENRY WILLS, ASC, "Eek Cummings Show" (Lawrence Productions) with Eek Cummings and Rosamund De Camp. Bob Cummings, director.

INDEPENDENT

- FRANK CRONIN, ASC, "Hot Dog Gang" (20th Century Fox) with John Ashley and Judy Tarr. Lew Landers, director. "Prostitute World" (American Int'l Pictures) with Robert Vaughan and Doreen Marshall. Roger Corman, producer-director.

- JACK ERB, "The New From Tallahassee" (10 TV Film, shooting in Florida) with Ralph Meeker. Oscar Rudolph, director.

- FREDERICK GATLEY, ASC, "Korean Attack" (Vanguard Films) with Don Kelly and Margaret Heber. Sherman A. Rose, director.

- HENRY GERTMAN, ASC, "How to Make a Monster" (American Int'l Pictures) with Robert Harris and Paul Brannigan. Herbert L. Block, director.

- ERNEST HALLER, ASC, "Man of the West" (CinemaScope & Eastern color, Audian Productions) with Gary Cooper and Jack London. Anthony Mann, director.

- MORRIS BARTHELM, "Indictment" (United Pictures) (Pyramid Productions N.Y.) Alan Kramer, director. "Daisy" (Pyramid Productions N.Y.) with Beverly Garland. Susan Seaborn, director. "Big Story" (Pyramid Productions N.Y.) Larry Delaney, director.

- ERNEST LAMLO, ASC, "The Power" (Seven Arts Int'l Productions—Screen Gems) shooting in Berlin with Jeff Chandler, Jack Palance and Marlene Dietrich. Robert Alrich, director.

- SAUL LEVITZ, ASC, "The Defiant Ones" (Stanley Kramer Productions) with Tony Curtis and Faye Williams. Stanley Kramer, producer-director.

- LINDA LINDEN, ASC, "The Barbara Gurney Story" (Epigoni, Inc.) with Susan Hayward, Robert Wynn, Dorothy "I Want to Live" (Epigoni, Inc. U.S.A. release) with Susan Hayward and Philip Canale. Robert Wynn, director.

- CLARENCE WARDENBURG, ASC, "High School Hellcats" (American Int'l Pictures) with Truette Lutz and Bert Bailey. Edna L. Bernds, director.

- SHERRY ZUCKER, "Big Story" (Pyramid Productions N.Y.) Larry Delaney, director.

REVERSE STUDIOS

- WALTER SCHNEIDER, ASC, "This is the Life" (Fanny Films) William Claxton, director.

YOUNG STUDIOS

- ELYN CARTER, ASC, "Gory Ghost" (Hollywood Pictures Productions) with Red Andrews. Various directors.

(Continued on Page 355)



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BOOKS • CATALOGS and BROCHURES

Kodak's 16mm Films

Eastman Kodak Co., Rochester, N. Y., announces a new booklet containing data helpful in selecting proper 16mm Kodak film to meet type production. It is especially helpful for those engaged in making 16mm motion pictures for science, industry, sports, education, etc.

Entitled "16mm Kodak Movie Films—Data and Selection," booklet tells when and why to use reversal or negative type film, color or black-and-white, and gives advice on loading, strapping, processing, duplicating and use of magnetic sound coating.

A special data section contains complete exposure information and filter compensation data. Copies may be had without charge from the company's Sales-Service Division in Rochester.

Film Lab Information

General Film Laboratories Corp., 1546 No. Angyle Ave., Hollywood 28, Calif., has available an informative new booklet, "Film Laboratory Information Important To You," written especially for producers of 16mm films, particularly color television films. The booklet describes the new and, in some instances, unique mechanical facilities and methods which they have developed to get out of 16mm color films all the quality inherent in them.

Much of the book is given over to instruction and diagrams of methods for preparing films for laboratory printing and effects.

Xenon Light Source Data

"A New Light Source For High-speed Cinematography" is title of interesting 4-page brochure issued by Wolfenbut Optical Company, which describes properties and advantages of company's new High-Intensity Xenon Lamp—a cold light battery operated point source illumination unit of extreme high level for scientific and industrial cinematography.

Research Filming Equipment

"Mechanics—Optics—Electronics" is title of comprehensive 16-page booklet issued by Bell & Howell Company, 7300 McCormick Road, Chicago 45, Ill., that illustrates and describes the facilities and specialized services available from company for those requiring precision camera and film-handling equipment and optics for military research, development and production.

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LEON SHAMROY (left) discusses his special color filters with Tedd AD company executive, "Shipley" Sanford, who holds one of them while Shamroy inserts another in special transport mounted on Tedd AD camera. Filters are moved by turning crank held by Sanford.

'South

EVER SINCE advent of the three-color system, color photography procedure for motion pictures has been pretty much the same. In Rodgers & Hammerstein's "South Pacific," a new concept is introduced. The use of additional color for emphasis in certain scenes—and now employed occasionally only in interiors—emerges a forceful new technique that, in the hands of the imaginative cinematographer, can add startling new dimensions to the visual and emotional aspects of a film production.

It is only natural that the man who has done more things with colored light



IN MOONLIT GARDEN Bruce and Miss Geyer wait to the music of "I'm In Love With A Wonderful Guy." This is one of the standard

scenes in picture now day-for-night shot in which Shamroy employs a new filter technique for color film for first time.

Pacific'—New Concept In Color Photography

Cinematographer Leon Shamroy introduces new technique of using colored filters to tint scenes in delicate, pervasive hues complimentary to story mood and action for increased emotional impact.

In cinematography than any other cameraman should have achieved the pictorial masterpiece that is "South Pacific." Leon Shamroy, A.S.C., acknowledged pioneer and expert in the use of colored light in motion picture set lighting, has achieved something new and different by shooting certain exteriors with large colored filters before the lens for added pictorial and dramatic emphasis.

As one film reviewer described it, following a pre-view of the picture, "... color becomes a free element, like the score, in stirring an emotional effect

Color no longer requires a rational source, such as a candle or a moonlit window. When the story needs it, Shamroy, by means of filters, gradually drenches the screen with an all-pervading pigment that neutralizes any distracting element in the hues of costumes or settings."

When Lt. Cable (John Kerr) is walking back from Lou's hut at Bebe Ha's—"walking on a cloud in a purple haze"—Shamroy effects a transition from normal full color to an overall magenta hue by sliding one of his special, rotatable filters across the lens as the

scene is being filmed. In the scene where Mimi Gaynor sings about the sky being canary yellow, a yellow filter moved in place before the lens creates a pictorial transition that lends additional emotional impact to her song. When shooting Romano Brazzi and Miss Gaynor singing "One Enchanted Evening," a deeper, golden yellow filter is used to symbolize the golden haze of Brazzi and Gaynor's emotions — and the filter is only withdrawn when they come back to reality when a servant says to Mimi: "Your jeep is waiting."

(Continued on Next Page)



BLOODY MARY sings "Happy Isle" while daughter lies gone through expressive gestures and Lt. Cable, surprised, watches. This is one

of several scenes in which Shamroy employed a special color filter to add a warm hue to scenes, thereby heightening its emotional impact



ON LOCATION on beach on Kauai, cinematographer Shamroy (seated) leaving white stockings, (background) discusses opening scene with director Joshua Logan, while camera crew moves the Todd-AO camera into place for the shot

The technique which Shamroy has employed with such tremendous success in "South Pacific" was not hastily conceived on the spur-of-the-moment to inject a spectacular note to the film. He had experimented with the idea, but never had an opportunity to employ it

speedily and for the purposes that he did in "South Pacific." The dull, overcast weather that was encountered on the Hawaiian location site had so much to do with his decision to try it as his long-awaited desire for the right opportunity to do so. And with Joshua Logan

as director, he had a receptive ear. For Logan, a veteran stage director, had long used colored light to add spectacle and emotional impact to theatrical and musical numbers.

As Shamroy and Logan trod the beaches and other location sites of the Hawaiian island of Kauai, where the sun had not shown for days, Shamroy suggested that colored films could be used to brighten up scenes and thus enable the company to shoot, whether the sun shone or not. Then there was the matter of the super-abundant beauty of the island of Kauai, with its riot of tropical coloring. Use of color filters offered a new psychological approach to the photography so the natural beauty of the island wouldn't look like postcard scenes on the screen.

"After reading the script of 'South Pacific' and returning to the studio from scouting locations in Hawaii and Fiji," said Shamroy, "I realized we would have to do something exceptional and different because reports indicated the bad weather encountered while scouting locations was to prevail for some time. If we filmed the beach scenes in contrast, the result would be too down-beat, and closeups and love scenes would suffer. Under the circumstances, we would have to come up with something to give such scenes emotional impact, and the injection of color into the scenes by means of filters seemed to be the answer."

"Until now," Shamroy continued,

(Continued on Page 100)



WHILE HITS: GAYNOR rehearses song, "Gonna Walk That Man Right Outta My Hair!" for the camera, Shamroy and director Logan (center) discuss position of camera angles. Camera is re-mounted in effect combination crane and dolly shot of lengthy scene



A WEALTH of artificial light supplied by sun often had to be used, even on sunny days, as here (note shadow in background) as color (that gives) lighting aspect of scene match other scenes in some sequences shot previously on overcast days



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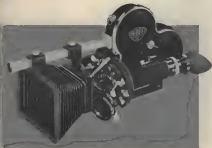
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USING EASTMAN COLORE negative, cinematographer Anthony Ariel (left) constantly checked color temperature of the light with a Spectra color temperature meter. One of two cameras used in production was Erymo "C" with 400-foot magazines, shown here in an improvised clamp-on mounting for filming exterior for "Long House." Shown entirely in Borneo.

Filming A Feature In Borneo

Tropic torrents and the damaging effects of heat and humidity on film and equipment plagued but never daunted the intrepid Malayan cinematographers who photographed "Long House."

By CLIFFORD HARRINGTON

THE FILMING of "Long House" among the Iban headhunters of the British Crown Colony of Sarawak, Borneo, proved to be an adventure that even the most seasoned members of the production crew will long remember.

Mohamed Zain and Anthony Ariel, native Malayan cinematographers, photographed the production in Eastman Color for Shaw Brothers Studio of Singapore. Zain and Ariel were selected by producer Ran Run Shaw, because of their years of experience in filming doc-

umentary pictures under the most adverse conditions.

From the moment the production company landed by plane in Sarawak, its members were hard at work. Tons of equipment, including two large generators, had to be transported by launch and native canoe to the location site. At Kapit, the last outpost of civilization, six native praus (canoes) were hired to transport the film-makers' cargo on the last leg of its journey. Then a special rail was built to ferry generators up

river. Later during a flash flood, members of the camera crew barely reached the river bank in time to lash the rail more securely in order to keep it and its valuable cargo from being swept away by the torrents.

Several months before the crew arrived in Sarawak, Phara Majumdar, director and writer, made a reconnaissance trip to the area to plan his story and pave the way for the main party. According to producer Ran Run Shaw's plans, he was to point up the lives and customs of the Iban tribesmen who until little more than a decade ago were head hunters. Phara emphasized these historic elements in his love story about a young English prospector and a beautiful native girl.

When the crew arrived at the spot where they were to make their headquarters, they found that the natives had already completed construction of a small, five-room long house. One of the rooms was converted to a darkroom where the camera crew loaded magazines for the Newall sound camera and the Model Q Bell & Howell Erymo. Re-winds were set up so that 1,000-foot bulk rolls of negative stock could be broken down into 400-foot lengths especially for the Erymo camera magazines.

Men had been hired locally to work as assistants in the electrical and camera crews. While these men were being familiarized with their tasks, the director and the production supervisor, Lee Mong Nam, went to the long houses in the area, seeking natives for actors and to fix up locations. (The cast was Iban with the exception of star Kenny Buchanan, another Englishman and a Malay.)

The two men were especially careful to observe local customs when seeking the rounds of the various long houses. They carried presents and participated in many local ceremonies before discussions got around to the selection of "actors." The Iban were not required to have much acting skill, because most of them were to be filmed at their usual tasks and activities. The female lead, Liah, and several others were required to speak some English.

When filming began, Zain and Ariel ran headlong into a battle with the elements. Daily rains wreaked havoc on both film and cameras. On many occasions a shower would start midway in a shot. Then all equipment had to be hurriedly covered with protective plastic bags, then carried back to the long house and dried. As a result, shooting usually would have to stop for the day.

Whenever the men left their permanent headquarters, they had to travel by port. There were few trails and no roads through the jungle. After transporting the gear by port, the Bham actors (doubbling as carriers) would have to hack a clearing in the tangle of growth in which to set it up.

For most of the outdoor shooting, reflections were used extensively to fill in the harsh shadows. The light in Sarawak is so brilliant that, when shooting on the open river, the lens had to be stopped down to f/11.

The crew members had to be rugged individuals, indeed. While shooting sequences of canoeing action on the river, the men had to set up the camera in the swiftly moving water which reached above the waist. Sickness hampered production, too. Several men suffered through bouts of dysentery. The production supervisor caught malaria and spent nearly a month in the hospital.

The camera crew spent twelve days shooting important sequences at a rapids. They had camped on a bench at a bend down stream. As the men finished their work at the spot, a tropical down pour sent water cascading down upon them, and caused the river near which they were walking, to rise nearly twenty feet.

When the crew moved into the long house to film scenes of native family life and pagan ceremonies, more problems were encountered. The houses are like apartment houses on stilts with many families living under one roof. Because the generations were able to produce only eleven kilowatts of power, the photographers had to arrange special lighting setups to make up the deficit. In one case the men were called upon to light a large group of people when their equipment was adequate for only a handful. The problem was solved by seating one group of persons with their backs to the camera in the immediate foreground and arranging the rest of the natives facing the camera beyond them. The lights were concentrated on the principal actors, while persons in front of the camera were silhouetted against them. Thus, all the actors were seen, but only one group illuminated.

Camerasmen found the floors in the house to be poor support for a tripod. They are constructed of bamboo slats lashed to beams with wide spaces left between them. As a result, the tripod had to be mounted on a wooden triangle to span the cracks. Also the floors were springy and the camera had to be set up

(Continued on Page 326)

TYPICAL jungle terrain in which most of footage for "Long House" was shot



CAMERAMAN Mohamed Tan stands waist deep behind camera to make low-angle shot of Bham boatmen in domestic action involving their shallow river boats



LIGHT weight and portability of Eyzene made it ideal camera for use in hard-to-reach locations in jungles of Borneo





SHOOTING A SCENE for "See It Now" during singer Marion Anderson's recent tour. In the production crew are master Grip On Rite, cameramen Charles E. Merz, assistant Joseph Bell, and (showing new electrical equipment at right) author-creator David Blumgart. Synchronizing unit is mounted on dolly shaft at back of camera.



AUTHOR BLUMGART stands beside the Ashley film camera and sound synchronizing unit which was used on "See It Now" assignment.

Syncing Camera With Tape Recorder

"See It Now" production crew solves remote-filming sound problem with gadget that utilizes camera to generate frequency signal that keeps tape recorder and camera in sync.

By DAVID BLUMGART

"SEE IT NOW," long one of the top-rated TV shows in America, attained still greater stature recently when it put on the air a filmed account of the 35,000-mile, twelve-nation concert tour of singer Marion Anderson, sponsored by the State Department. Reviews of the show were extremely favorable; the achievement of Miss Anderson, inestimable.

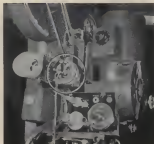
"The Asian response to her character and artistry was a complete propaganda triumph, to judge by the pictures and sound track of 'See It Now,'" wrote Robert Lewis Shayon in *Saturday Review* for December 3, 1957. "... expressing an undeniable sympathy for Miss Anderson as she greeted them and sang for them... were the faces in her audiences—impulsive, rag children; old men and women, Eastern cosmopolites; peasants; clerks; lawyers.

These faces of Asia, photographed and edited with perception and taste, lent with startling, vivid reality upon our peripatetic TV consciousness..." reviewer Shayon continued.

When "See It Now" decided to do the story on Miss Anderson's tour, we had to consider many factors relating to both the photography and sound recording. In our normal operations of filming material for "See It Now," about 90% of our shooting is with direct sound, and single-system is the only

(Continued on Page 224)

BLUMGARTONE "Synchronizer," shown inside circle, is mounted on dolly shaft at rear of camera, generates frequency signal which is recorded on tape simultaneously with regular sound signal.



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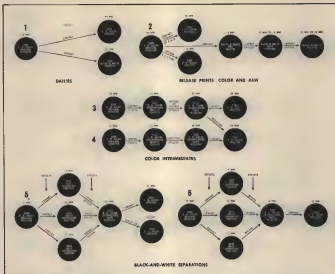
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STEP-BY-STEP procedures for six methods of making color release prints are diagrammed above. Methods 3 and 4 are recommended where delivery time for prints is a primary concern. Methods 5

and 6 are recommended where economy and protection of originals are important factors. All 16mm Reiman Color-coded and reduction printing requires "A"-rated sound tracks.

Ten Methods For Making Color Prints

Standard Printing Processes for Producing 16MM and 35MM Release Prints

By JOE HENRY

ORDERING A COLOR PRINT from a film laboratory today is a good deal like ordering a fancy dinner. First you must know exactly what it is you want and then you have to know how to order it. And equally important—you should know how to prepare your negative or original for the type of print you are ordering. To do this, it is necessary that you know something about the step-by-step pro-

cedures involved in making various types color prints. Moviachrome Color Corporation, New York, N.Y., has issued a brochure that aims to make all this understandable for its customers. The various printing procedures are explained in a series of flow diagrams that enable anyone to understand color print-making procedures and what is required to complete them.

The laboratory effects ten different color procedures. The customer's requirements, of course, dictate which of the ten should be employed for the type of print he expects.

Duals photographed on original color negative, as shown in Diagram 1, are produced by straight contact printing, in either color or black-and-white, to give the effect, within 24 hours, a print of what has been photographed—exactly as he shot it and sent it to the laboratory.

Release Prints, in either color or black-and-white, can be obtained through the procedures shown in Diagram 2 from the original negative, edited and cut and combined with instructions for dissolves or other simple effects. This process results in top color quality on straight positive. However, it should be pointed out that in this procedure the original negative is being exposed to normal wear and tear every time it goes through the printer, and therefore there is a limit to the number of top quality prints that can be made this way without seriously impairing the master negative itself.

Color Intermediates—The procedure for this type of printing is shown in the flow diagrams 3 and 4 for both 35mm and 16mm positive prints. Where a Color Intermediate master positive is made and employed in making release prints, the original negative is protected from the wear and tear that would result were it repeatedly used in making prints, as described in the preceding paragraph. Moreover, the Color Intermediate provides more leeway for introduction of optical effects in the release print. The original negative in this procedure is used only to print the Color Intermediate Positive, from which, in turn, a duplicate negative is prepared. The Color Intermediate process is lost. For additional permanent protection of the original, still other processes are available to the film maker.

Separation Positives—This procedure is diagrammed in Figures 5 and 6. The three separation positives, prepared from the original color negative, are actually each a black-and-white print, and each one is slightly different. In the printing process, wherein the separation positives are made, color filters are used so that only one of the colors of the three-color process (that is standard in motion pictures today) comes through to form an image on the B&W separation positive. Thus one records all the red, another all the green, and the third all the blue in the color image in the original. These are then used to make the Color Intermediate Dupe Negative from which the release prints are obtained; printing is done optically through a printing lens and appropriate filters.

The chromatic values in this method of color film duplication are just as high as in the other printing methods described in preceding paragraphs. In addition, the black-and-white separations offer certain additional advantages. For one thing, black-and-white film is not subject to any chromatic changes due to age. Where even the faintest color dies away, in time, have slight tendency to fade or rise, black-and-white "forever," to quote a familiar ad on diamonds. Where black-and-white separations are employed, a true, permanent master record of the color original is secured. Also, the black-and-white intermediate process enables the laboratory to provide more precise color correction control of release prints.

Same idea of the extent of control which Moxfield's technicians employ in making and utilizing the three separations is the fact that match-up differential is held to an infinitesimal 500 millionths of an inch.

Duplicating Color Positives—This procedure involves two (Continued on Page 230)

USE OF COLORE interleaved and reversed color film in production of release prints is illustrated in the flow diagrams below. Methods

7, 8 and 10 require "K" sound tracks, while a "K" sound sound track must be supplied for release prints made by method 9.



DUPLICATING COLOR POSITIVES



FIG. 1—Showing bi-pack animation camera on animation stand for photographing film in color on animation stand. Spot on stand at right provides illustration.



FIG. 2—Optical printer is used when title text is to be superimposed over live action or action backgrounds for color film. A wide range of special photographic effects can also be produced in this machine.

Professional Titling With An Animation Stand

Step-by-step procedure for producing titles for both black-and-white and color films, using the hot-press title text printer, animation stand, and optical printer.

By VERN W. PALEN

Animation Equipment Corporation

IN MAKING SUB-TITLES for a 35mm master color positive print, animation stands can be employed in two ways. In one case, the entire operation can be performed on the stand through use of a bi-pack camera and underneath lighting. In the second case, the titles are shot on the stand, then superimposed on color prints in an optical printer.

For this type of work, the animation stand must meet certain standards. It must be structurally strong to provide absolute rigidity and yet must have flexible controls to accommodate the severe registration requirements of such tasks.

The camera should be a rack-over type so the operator can view the precise composition of the title through the view and reticle gauges. Furthermore, it must accommodate a bi-pack magazine having an automatic take-up (see Fig. 1). Straddle movement of the camera must have two fixed pilot registration

pins. The step-motion motor should have a range of five speeds to provide the necessary exposure variations for color and black-and-white.

The animation stand should have a compound and platen. Table surface should have a hole at the center equal in size to a 12 field. This opening should extend to the underneath lighting unit, which should provide 500 watts of illumination and be air-cooled.

Provision should be made for top lighting and this requirement is usually met by the user in accordance with his requirements. Top and bottom lighting installations should be supplied with energy from a constant voltage transformer in order to assure uniform illumination over long periods regardless of line voltage fluctuations.

Method 1—First, use a hot press (see Fig. 3) to print opaque white letters on an acetate cell using approximately a 12-

field disc. Before and after lettering the cell, punch the top edge. The standard 3-hole system (one round and two oblong holes) should be employed and the holes should accurately match the pegs on the compound table. This is standard estimated criterion procedure.

Next, the master insert is the compound is replaced with opal or fine ground glass. The cell is placed on the pegs and the glass platen is lowered over it in order to insure uniform flatness. Underneath lighting is turned on and top lights are extinguished. Now, with the camera racked over, the finder will reveal opaque black letters with a clear field of light for printing purposes.

When loading the bi-pack magazine, place the color master in front of the color raw stock. When threading the shuttle, make a "sync" mark on both films before shooting. Set the stop-motion counter at zero. If the stand is not

equipped with automatic follow focus, manually adjust the lens for sharp focus on the title. This is the setup for printing raw stock through master color positive. It masks out areas where titles are to be exposed on second pass.

The master color print is now removed from the hi-pack magazine. The raw stock is wound back to the starting position indicated by the stop-motion counter. This back-up procedure is very fast since modern stop-motion motors are designed to provide fast rewind speed, which is one-half that for live action. If a print is made of either the semi-negative or reversal stock before taking the second pass, the result will be black letters on the screen.

To get clear letters, white letters or color letters on the screen, it is necessary to take a second pass after removing the master color print from the hi-pack magazine. For white letters, the procedure is as follows: Place a glossy black card under the cel. Turn on the top lighting and extinguish the underneath lighting. Now expose the white letters on the raw stock in the animation camera. Coordination and synchronization is easily maintained with the aid of the stop-motion counter.

For color titles—the title text is printed in the desired color on the cel. Standard type fonts and inks are available for hand-setting and printing the titles in opaque colors, or in black or white on cels, paper or cards.

To produce the drop shadow effect in title text, it is necessary to halftone

(Continued on Page 320)



HD 3000 letter press for making title imprint on cels, title cards or art backgrounds. Text is set in regular printer's type and automatically heated to offset reduction of imprinted type to title card



HAROLD WELLMAN
ASC

'Emmy' Awarded Wellman



THE ACADEMY of Television Arts and Sciences, last month, awarded its "Emmy" for best achievement in photography of a television film during 1957 to Harold Wellman, ASC. His aerial photography of "Hemo The Magnificent," a film in the Bell Telephone Science Series, won him the award.

It was Wellman also who had previously filmed "Our Mr. Sun," another Bell Telephone Science TV film which, while it was not cited for photography, won an "Emmy" last year as one of the outstanding video films produced and televised during 1956.

Wellman has been photographing films for television since early 1955, when he was signed to direct the photography of a number of films in "The Life and Legend of Wyatt Earp" series. In between, of course, he has photographed a number of feature films, the most recent, perhaps, being "The Invincible Boy," a Naylack-Hoffman production for M-G-M release.

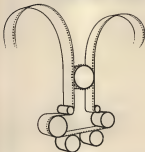
Wellman is one of many cameramen who have worked their way to the top in the industry, starting in some menial studio job. With Wellman, it was in the property department of the old Inspiration Pictures. From there he progressed in succession to electrician, grip, camera assistant, operator, and finally to first cameraman.

His initial assignments, after reaching the latter status, were in process photography, miniature work, and second unit cameramen. Ultimately more and more of his work found him on the sound stage at R.K.O. Studios where he photographed pictures for such prominent screen directors as Don Siegel, Toddy Terrell, John Farrow, and Josef Von Sternberg. To his credit is the photography of such pictures as "The Big Stral," "The White Tower," "Son of the Musketeers," "Settling With A Gun," "Macao," and more recently—"The Hitch Hiker," on which he worked with Nick Muscenca, "Murder is My Best," and "The Animal World."

As in the case of the film industry's "Oscar" awards for cinematography, it is a specific television film—usually one in a series—that is nominated for photographic achievement, with the director of photography of the win-

(Continued on Page 322)

"Synkinetic Motion" celebrates 10th anniversary



Ten years ago, on May 22, 1948, at the 63rd semi-annual convention of the Society of Motion Picture and Television Engineers at Santa Monica, California, Magnasync engineers demonstrated the first 16 mm magnetic film recorder. The paper described a revolutionary new principle of filtering defined as "SYNKINETIC MOTION." This new concept, based on the use of dual-flywheels, has since become widely accepted and used by all leading manufacturers.

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SAN FRANCISCO: South Cinema Co., 43 Broadway St., San Francisco 6, Cal.; Office 1-7232

LOS ANGELES: Ewa S. Jensen Cine Equipment, 1940 Sorensen Blvd., Los Angeles 44, Calif.; Office 2-1126

INDIA: Cine Engineers, 17 New Queens Road, London W14 3 099; J. Durr & Co., Ltd., 1, St. George's Place, Chertsey, Surrey, Surrey, Surrey; Phone 24-5111-4; Cable 'CINARKO'

UNUSUAL SHOT of three UFOs captured in Alaska in 1954 by Erich Kaiser. Value of shot and its authenticity was enhanced by inclusion of reference points (mountains in foreground) within the picture frame.



SASIMAN KODAK CO.'s K-100 16mm camera is one of two recommended by authors for photography of UFOs, because of its telescopic viewfinder (arrow) and extended 40-foot run of film in each winding of spring motor. Alongside camera is 8-inch telephoto lens—essential to UFO photography.

Equipment For Filming UFOs

The cameras, lenses and film best suited to this field of cinematography.

By MAX B. MILLER and NORMAN S. KOSSUTH

PHOTOGRAPHING unidentified flying objects, technically referred to as "UFOs", is a difficult and patience-testing pursuit, in which success is largely a matter of being in the right place at the right time. However, the right equipment is also a determining factor to success. Examples of photography of actual UFOs, which were illustrated and described in our initial article last month, were obtained with cameras and lenses best suited to this type of photography, in the hands of capable photographers.

Only 16mm and 35mm motion picture cameras are suited to this field of photography. Attempts to obtain satisfactory footage of UFOs with 8mm cameras have been relatively unsuccessful, because of the limited resolving power of the lenses used with such cameras. In the ensuing paragraphs, the authors will describe cameras, lenses and films which, in their opinion, possess certain advantages for filming UFOs.

Camera. We feel that the Kodak K-100 and Bell & Howell Model 240 16mm cameras are most satisfactory for this type research. Both have become available rather recently, have long spring runs (40 ft. and 32 ft., respectively) permitting extended following of action, and both are noted

for overall quality and workmanship. Personal preference should indicate which is the more suitable choice. Because its shutter speed can be reduced to 8-frames per second, the B&H No. 240 might be slightly superior to the K-100 (limited to 16 fps) for night photography; on the other hand, its fastest speed is limited to 48 fps compared to 64 for the K-100, making the latter more suitable for daylight UFO attempts with a telephoto lens of 6-inch focal length or longer. The No. 240 is slightly more economical than the K-100. The latter, perhaps, has the finest telescopic viewfinder of any 16mm camera, which should be a consideration.

Of course, any kind of camera can be used to take pictures of UFOs, be it a Keystone, Mansfield, Brownie, or other. Such cameras are usually limited to lenses of not more than 3-inch focal length and to spring runs not exceeding 20 feet.

Lenses. We believe the most satisfactory lens for the filming of UFOs under a variety of conditions (day, night, etc.) is the f/2.8 Century 6-inch Apo-Tele Athenar. Its large aperture makes it especially suitable for night photography. Our

(Continued on Page 322)



TO ILLUMINATE scene within Otis Wieringer's Perkins Observatory, for "The Lure." Lighting was planned to accentuate only outstanding details of apparatus against black background of dome room. Taking meter reading (center) is Larry Best, while Don Hughes focuses camera (top, rear).

Seventeen

Objective of the
film—new i



INTRINSIC SIMPLICITY in production technique is exemplified here as student production staff prepares to shoot a sequence scene involving a student council meeting. Meta Coleman (head, upper right) and

dynamic make directly over director. When scene was actually being shot, both the Balas camera and operator were draped with blankets for noise suppression, in the absence of a camera blimp.

Months And 9,000 Feet Of Color Film

o-it-yourself collegiate film producers was to make a new kind of promotional photographic treatment, in story format and in documentary style.

THE LIFE OF A COLLEGE is a much more fascinating subject than the typical college promotional film adorns.

Two students stood in the office of the director of publicity at Ohio Wesleyan University in September of 1956 with this thought in mind. They pointed out that OWU had an interesting story to tell—in film. The publicist agreed, then posed three very practical objections: Ohio Wesleyan employed no one who knew how to make a motion picture; the college owned not a single piece of professional film equipment; there was no money in the publicity budget for such a film project.

Seventeen months, 9,000 feet of color film, and 5,000 hours of work later, Ohio Wesleyan still employed no professional film maker, nor owned film-making equipment, nor officially appropriated a single dollar for film production. But Ohio Wesleyan did own "The Lamp," a thirty-nine minute color-and-sound promotional film that its makers believed was unique. The story of how "The Lamp" was born is one that very probably will warm the hearts of college public relations men elsewhere.

To begin, "The Lamp" was produced, directed, written, and photographed in 16mm Kodachrome entirely by university students who volunteered for the project. It cost eight thousand dollars—six thousand over the original budget. It's narrated by probably the best-known voice in the world: that of a commentator and world traveler Lowell Thomas.

Ohio Wesleyan is a liberal arts university of two thousand students in Delaware, a small town about 25 miles north of Columbus. Larry Ross, a senior and I, then a junior, were convinced that the university story should be told through the medium of the motion picture. What's more, we persuaded Publicity Director Mack Lipper to let us tell the story our own way. That's the first unusual thing about "The Lamp" as a college promotional film. It was conceived and produced by students, without the direct creative influence of a single administrative officer or faculty member.

This was our real ambition for "The Lamp": to make it a document, not an advertisement, of a small college; to make a film that straightforwardly presents our own belief in the meaning and value of liberal arts education; to make these ideas understandable to those unassociated with the college scene.

Before a shooting script was begun, we two student photographers set out with two Bolex 16.16 cameras to cover the

campus sensically from every angle during the three most picturesque weeks of the college year—in early and middle October. When we had a good selection of exterior scenes of both buildings and student life, we sat down to create a story line and scenario. To personify the school story and to provide effective continuity, we built our film story of "The Lamp" around two students, Jim Eckhoff and Marcia Palmer. The chronicle of their typical collegiate activities ranges from the dully early rising for eight o'clock classes, touches on their campus courtship, and reflects the optimism of the average student's views of the future.

The initial script listed 350 specific scenes telling a roughly re-ordinated story. In the end, we shot a thousand separate scenes, which must be something of a record for a promotional film of any kind. Shooting lasted throughout that

(Continued on Page 314)



THREE CAMERAS, whose operation was used by students, were set up at vantage points in midtown in short succession of college activities and those rendering the eye-appeal factor for "The Lamp." Each camera had three lenses, and shooting was done "TV style"—alternating in shooting to provide variety of angle shots on one continuous take.

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The article reports that after an extensive investigation, the FBI was unable to find any evidence linking the author to the 1992 Los Angeles riots. The author's name was not even mentioned in the report.

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3. Costco Wholesale Corp.	55,100	3. Costco Wholesale Corp.	55,100
4. Target Stores Inc.	49,600	4. Target Stores Inc.	49,600
5. Kroger Co.	48,500	5. Kroger Co.	48,500
6. Walmart Canada Inc.	47,800	6. Walmart Canada Inc.	47,800
7. Sam's Club Wholesale Inc.	47,200	7. Sam's Club Wholesale Inc.	47,200
8. Walmart Mexico Inc.	46,500	8. Walmart Mexico Inc.	46,500
9. Walmart U.K. Inc.	45,800	9. Walmart U.K. Inc.	45,800
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By BILLY LAZARUS

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We are the only agency in the southwest with our own motion picture, sound recording and still photography facilities. These facilities have been maintained for over six



years, functioning competently in all the various fields of media. In as far as the field of TV commercial production is concerned, we have been pioneers in the southwest, and have, as a result of the tremendous TV work acquired of us, expanded into newer, larger quarters twice within the six-year period.

Of course, the type of motion picture work we do in our studio is somewhat limited, from a practical standpoint, due to the fact that we are basically an advertising agency, and not a film production company. Highly specialized filming requiring special equipment and most of our actual film processing work is turned out to film producers in Houston or Dallas. Film duplicating, re-recording, dupes-negatives, release prints and any work that requires optical effects is generally contracted. In any case, where we feel it is to our client's advantage for us to engage services of outside specialists, we do so. However, we have found that we are able to produce the major portion of our client's film and television work.

(Continued on Page 318)



MODERN soundproof roomman's booth, directly in view of audience, where agency's personnel produce radio and TV sound tracks or program soundtracks on discs or tape.



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17 MONTHS, 9,000 FEET

(Continued From Page 201)

year, and into the next—sixteen months
in all. If all the usable footage we shot
for "The Lamp" were spliced together,
it would screen for three hours. To create
the final product, which included
twelve prints, we spent a little over
eight thousand dollars. The going rate
in commercial film circles for a forty-
minute professional film is at least \$250
per minute, or a bare minimum of ten
thousand dollars. We like to think of
ourselves, correspondingly, as "big time
spenders on a tight budget."

The secret of our penny-pinching is,
of course, that we were students work-
ing for student wages photographing
other students working for nothing. And
this fact suggests another: that "The
Lamp" tells a story that no commercial
producer could have told, a story that
we ourselves had lived for four years.
It is evident that a film attempting to
tell about the effects of education on a
young man of twenty-one years is best
conceived, if they can gather the tech-

nical skill demanded by a Hollywood-
conscious public, by a group of other
young men of twenty-one years in the
same situation. And "The Lamp" is the
story of an entire college year and its
lost season. To make such a picture
therefore the film unit must by defini-
tion be local, for the cost of maintain-
ing an outside production company on
campus for a year is, to say the least,
prohibitive. We lived with the university
for a year; we knew what the public
should know about the campus during
that year.

We found also that our position as
students was fortunate. We obtained a
"naturalness," a spontaneity, from our
"action" who were actually our close
friends—a naturalness that few profes-
sional directors could have achieved
from a group of unfamiliar people of
different ages and interests.

The largest single sequence in the
film tells the story of the classroom,
of academic life. But our production staff
agreed quite early that the classroom
furnishes but fifty per cent of the col-
lege's total effect on the student. It was
the depiction of that other fifty per cent,

New Zoom Lens For 8mm Cine Cameras



**SMALLER Pro-Zoom lens for 8mm cam-
eras on view from rear. Coupled view-
finder with zoom control lever is at left.**

from wide-angle (9.5mm) through to
telephoto (38.5mm). Its lens speed of
f/1.9, said to be the fastest ever achieved
in an 8mm zoom, makes filming with
available light a reality through the full
zoom range. A gear-coupled zooming
viewfinder insures that what you see you
get on film.

Actual tests conducted with the lens
revealed satisfactory resolving power at
all apertures. While results are some-
what soft at the f/1.9 (full) aperture,
sharpness greatly increased beginning at
f/2.4.

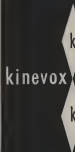
The Pro-Zoom optical chain consists
of nine elements, five of which are
moved by a system of reciprocating
cams to effect changes in focal length
throughout the full zoom range. The ac-
curacy which is achieved here is con-
sidered excellent.

A compact 2" in diameter and $3\frac{1}{2}$ "
in overall length, the Pro-Zoom will fit
just about every 8mm cine camera hav-
ing standard "D" lens mount. An inno-
vation is a patented Color Wheel which
indicates the field of vision—wide angle,
normal, or telephoto.

At its present list price of \$249.50
the Pro-Zoom is considered a good
equipment buy for the serious 8mm
movie maker who wants to be able to do
everything photographically with his
camera that can be done with 16mm or
35mm.

THE INCREASING IMPROVEMENTS in 8 or
8mm cine cameras that are available to-
day place them in a more favorable
position than ever before, except for
making motion pictures for professional
or commercial use. And there is strong
possibility that the narrowest cine film
may yet reach professional status, as
view of the success of one television sta-
tion in using 8mm film for its television
newscasts. (See *American Cinematog-
rapher* for August, 1957, page 512).

The advent of zoom lenses for 8mm
cameras marks one of the more impor-
tant advancements in this sub-standard
medium. Recently Ednauld Research
Corp., Fredrick, N. Y., introduced its
Pro-Zoom 8mm camera lens with a range



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- Technical Products Ltd. — Tokyo, Japan

much of it unpublicized, some of it of sturdy public repute, that would be the real challenge to our project: life in a fraternity house, singing together in a choir, dormitory life, the social scene, etc.

The line-up of so-called "extra-curricular activities" presented a problem, too. We decided that, to do justice to those seemingly dissociated bits of college life, they should be presented as integral parts of the total academic scene. So that's where we put them, in the academic sequence whose dominant message is that staging a Broadway musical in education on the same value level as metaphysics in the classroom; that a jazz quartet is as demanding of skill as an a cappella choir.

But other facets of the college scene—the dances, serenades, friendships—where do they fit in? This question is answered in the entire second half of the film. Rather than organize and sort out these college experiences, as the academic sequence was organized, we presented them in a sort of montage treatment on a large scale. These elements form a mosaic of bits and pieces that occupy the last part of the picture that, in the final analysis, turned out to be the freshest part of the entire film. Here are the fraternity pranks, the serenades, the football games, the open houses, the hall sessions—experiences that are the most

nostalgically remembered of the college years.

The most unusual sequence in "The Lamp" is the finale, a three-minute synchronized sequence depicting the performance at Commencement of Gray French's great 19th Psalm by the combined college choir and the symphony orchestra. The sequence required three full days to make. We used every available photographic lighting unit on the campus, "68,000 watts worth" in all, to light up the stage of Gray Chapel. Here scenes were filmed in our continuous take by three 16mm Bolex cameras set up at different points in the auditorium, each alternately shooting pre-planned angles eyed by intercom communication from a central point. A production crew of ten made two complete takes of the performance in the 200-member cast. Conductor Renford Keller's timing was so consistent both takes ran the same length of time to the second, and the best scenes from both takes were later edited together to produce the final sound sequence. Closeup shots of individual instruments and performers were photographed after the performance in sync with the taped playback.

The most surprising fact of all is that the finale, as well as all other lip-synch scenes in the film, was filmed and recorded with non-synchronous equipment! All the lip-synch scenes in "The

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Lamp" were made on this principle: that the spring-driven Rolex adjusted to run close to 24 frames per second will maintain reasonably constant speed for a half-minute sound take, and will stay in fairly close sync with a quarter-inch magnetic recorder of good quality.

For the choral sequence we used an Ampex portable recorder. Other lip-sync scenes were recorded with a Viking tape deck and preamplifier. We did synchronous sound matching and editing on the campus with rented equipment. Background music scoring and sound mixing were duties entrusted to Bay State Film Studios in Springfield, Massachusetts. The master track was mixed from four basic tracks: two for supporting music, one for lip-sync sound, one for narration.

Perhaps the most exciting single moment for us in nearly two years of production was that in which we read a letter from Lowell Thomas, who is a trustee of Ohio Wesleyan, agreeing to serve as "the voice" of Ohio Wesleyan. His voice adds a new dimension to the visual world of the photography. To furnish yet a third dimension, the voice of the student, Jan, comments at intervals on such student life items as fraternity living and the social scene. Jan's voice was created by Rod Warner, a senior radio-television major.

Basic equipment for lighting consisted of two small ColorTran power transformers, producing 3000 equivalent watts each, and a number of ColorTran heads. Additional illumination, totaling about 10,000 watts, was derived from photo-floods mounted in berks.

Our strict criterion for photographic treatment was that every scene reflect a real-life naturalism. In aiming for Hollywood authenticity for each scene, interior and exterior, we wanted to avoid completely the standard, high-key, usually overilluminated visual aspect of many commercial color films. Thus, our apparently meagre array of lighting equipment was quite adequate; each piece of equipment was used specifically and creatively to best advantage. Because of my own personal prejudice for warm, rich color and high contrast, both Daylight and Tungsten Kodachrome stock were used, each in its own proper element.

Nearly every rule in the Kodachrome instruction book was violated to produce the best scenes in the film: extreme backlighting for winter scenes of the snow-laden campus, shooting directly into a thousand-watt spot in the scene depicting the conductor of the choral sequence; a parent's eye view of a proud new graduate through the reflex finder of the family camera, shot at eight frames per second because of low light transmission through the reflex prism,

exterior of campus buildings filmed almost exclusively before 8 a.m. and after 5 p.m. to exploit the play of warm, rich sunlight on the old stone walls.

From the beginning, "The Lamp" seemed much too big a story to remain campus bound, or restricted to the small town of Delaware or even the state of Ohio. Those of us working actively on "The Lamp" felt the pulse of education as both a creative force using the materials of human history and as a reflected image of that history. To illustrate the basic search of Menckend, the search that sustains education, we incorporated into "The Lamp" a six-minute prologue, preceding title and credits, that traces the history of Man's developing, expanding conception of God down through the ages. The transition between prologue and the university story itself is the depiction of the mission of itinerant, early American circuit riders who established Ohio Wesleyan. To condense three thousand years of history in six minutes is quite an order, but the resulting sequence is one of great general appeal to all audiences, particularly on television, narrated as it is by Lowell Thomas.

Footage for the prologue was shot during my tour of Europe after nine months of local shooting were drawing to a close. Locations all over Europe, such as Stonehenge and Salisbury Cathedral in England, the Colosseum and Forum of Rome, the Piazze di Santa Marco in Venice, the chimney pots and cathedrals of Paris, the Swiss Alps, constitute a colorful pictorial essay on Western Man's religion from idol-worship through the Nativity in Bethlehem and the universal church of the middle ages to the religious result of America's founders. The prologue that locates the university in time, and the singing of the triumphant 150th Psalm that ends "The Lamp" weld together all elements of the film and provide a sort of overall theme conveying the atmosphere — the very essence — of the institution itself.

These then were our objectives for "The Lamp": to make it a new kind of promotional film—new in photographic treatment, new in story format, new in its documentation of an institution entirely by students themselves. It's a formula that might well be of value to other colleges, as more and more schools try their hand at public relations on film, and as higher education re-interprets for the public its own growing role in society.

When using an 8mm or 16mm camera that takes roll film (instead of magnetic, load film in dim light or in the shade of a building, car, etc., to prevent edge-logging of film. Never load roll film in direct sunlight; magazines, of course, are free from this hazard.

"WE DO IT OURSELVES"

(Continued From Page 313)

scription requirements in our own studio.

The Karris Agency produces comendable sync sound film, which is shot with an Auricon Cine-Voice camera—a turret model with one-inch, wide-angle and two-inch lenses. All Eastman Ektachrome Double system work is done in one of two ways: either with the Cine-Voice and using Magowooder quarter-inch tape with sync-signal, or by utilizing a Bolex H16 Reflex camera with voice over. The targeted Bolex has one-inch, two-inch, and wide angle Switar lenses.

Live action film is shot in the studio where scenes require only a small amount of studio area, or is shot on location where practical. Our lighting equipment for both film and stills is adequate and consists of: 1 spot boom, 2 spots, 1 flood, and portable Color-trans for location shooting. Film editing equipment consists of a Hollywood 4-gang synchroscoper, Geng viewer, three sets of Nu-Made rewinds, and two RCA "400" sound projectors. For reading our sound tracks, we utilize the sound drum of the projectors. All film is shot as reversal, and a dupes fine-grain negative is made where opticals are required. Plus-X is used where there is sufficient light; Tri-X where lighting is not adequate.

All animation work is turned out due to the fact that we do not have the animation facilities to do the high caliber of work we feel effective TV commercials require.

Our photography department shoots still photos on location and in the studio for graphic arts and publication ads. Our still equipment is quite complete for our purposes, and consists of a 4 x 5 Graphic-Vue camera, 4 x 5 Speed Graphic; 2 Leicas; and a Yashika-Mat. We use a Quick-Set tripod for stills, a Professional Jr. and Bolex tripods for motion pictures.

Our TV slide compositions are shot with the Leicas, using Eastman Kodak direct positive film. Eastman Kodak micro-film is used for high contrast super slides. All titles are shot on a Bolex Titler where size permits. All still processing is done within the Agency, where a complete darkroom is maintained. The darkroom is equipped with an Omega enlarger, a custom-built minimum steel sink, a Richards print washer and a Peco Electro-glass dryer.

All sound recording is done on a Magowooder PT-6J, which has the Southwest Film Labs sync signal for lip sync movie recording. All of our radio commercials are produced within the agency, utilizing a full and complete library of sound effects. We have 2 Pro-

to 6-N turntables which are used for cutting discs and for playback, and a Pres-to 90B amplifier-mixer. Our tape recorder is rack-mounted along with a patchboard and an AM-FM tuner used for air check work. The patchboard is set up so that clients who wish to check on their commercials before they are aired may sit at our large conference room and hear the record or tape recording as it is piped into the room. For the convenience of client editing, we also have a projector and screen set up in the conference room.

The film and sound studio is treated acoustically, and contains backdrops and props for studio filming. For radio production, we have a soundproof announcer's booth where 2 Shure Unidyne mikes are connected to our recording control room.

As stated earlier, we are not a film production company, nor do we contract to do outside work for other agencies, or directly for radio or television stations. Film production such as we do is a necessary adjunct to an expanding client service. We believe that film making, especially as it relates to TV commercials, is becoming more and more a logical operation within the advertising agency business.

The Kamin Agency, with its complete and modern equipment, exemplifies the growing trend of many aggressive agencies toward creating and producing media within their own organizations in order to save time and meet the deadlines imposed today by both the client and broadcaster.

Making much of this possible, of course, is the wealth of "do-it-yourself" equipment which has been made available in recent years — items such as 16mm single-system sound cameras, magnetic tape recorders, portable light-

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ing equipment that operates from ordinary 110-volt power sources, and, of course, the increasing number of regional film processing laboratories

whose expert services and small, independent film producers and agency film departments such as ours turn out top quality results.

"SOUTH PACIFIC"

(Continued from Page 296)

"I'd been thinking in terms of solid-color filters only. Now I saw where emotional and visual impact could be heightened with a graduated filter, in which colors would gradually change from one to the other as the filter was moved across the lens.

"Earlier, I had the studio make up an experimental graduated filter of the size I proposed to use with the Todd-AO camera, but I wasn't sure where I could have a full, permanent set made. Finally, Harrison & Harrison of Hollywood was given the job of producing them, and the set was completed just before we left for Kauai."

In the meantime, Todd-AO's "Skippy" Sanford and his engineering staff designed and made a mechanical transport device for horizontally moving the filters at smooth and consistent speed before the camera lens. The filters, made of optical glass with the colors ground on, measure about 3½" by 12" and fit snugly in a carrier-frame in the transport device. Moving a filter or filter combination (Shamroy often used a tinted filter and an ND filter together) in place before the lens or transporting it across the lens, as when a graduated filter is used, is done by the assistant cameraman operating a small hand crank on the device (See photo).

In the beginning it was eliminating rather than Shamroy's purpose to use the filters only to pep up aspects of the beach scenes, which were the first scheduled for shooting after arrival on location at Kauai, and perhaps to give an emotional flip to one or two of the love scenes in the closing sequences. But as Josh Logan saw the results of Shamroy's first efforts, he decided to extend the technique to more and more of the picture.

At one time, the insouciant Shamroy, perturbed by Logan's repeated requests for a filter effect, demanded: "What the hell are you trying to make, Josh? You just don't do things that way in pictures!"

When Shamroy's first footage was processed by Technicolor and screened for studio executives, opinion was strongly against his color innovation, and he was not advised by cable. When he explained the filters were employed to offset the bad weather and permit the company to continue its regular schedule of shooting, one executive called: "What are

you trying to do? Control the elements, too?"

"It's really a tough thing to do, when trying to achieve something delicate and emotional in exterior scenes, to shoot one day with back light and come back the next day to resume the sequence and find light conditions have changed entirely. Giving these scenes a touch of color with a filter subdued the differentiations in the daylight and gave them logical appearance as a unified sequence," Shamroy explained.

Day-for-night shots in "South Pacific," have come in for special treatment by Shamroy, too, and reach the zenith of perfection, Shamroy, who experimented and persevered in achieving this illusion almost from the inception of the three color process, was reportedly the first cameraman in those early days of color photography to make a satisfactory day-for-night shot in Technicolor. Never satisfied, he continues exploring and trying new ways to achieve complete naturalness in this type shot—especially to overcome the muddy, copper-colored skin tones so often seen in day-for-night shots in color.

It is the accepted practice today in Hollywood to make day-for-night shots in color by either one of two methods: 1) shooting the scene as for a normal day shot with the 85 filter on the lens, but under-exposing the negative and in structuring the laboratory to print it day-for-night; or 2) coating the 85 filter and underexposing, with no modification in the printing. Both methods, while producing an acceptable illusion of night result in objectionable magenta coloring in flesh tones.

"In making day-for-night shots for 'South Pacific,'" said Shamroy, "I used a green 56 filter without the 85. The 56 absorbs magenta and when used without the 85 produces far more satisfactory flesh tones and at the same time a more realistic illusion of night."

The startling effect which Shamroy achieved with this formula is to be seen in the scenes where Miss Geynes and Renato Brand meet again in the garden of Brann's estate. Both players stand out prominently against the dull grey and blue background of a cloudy sky as dark ladies to right. Skin tones, while of a greenish-yellow halftone hue, somehow resemble what one might see

Shamroy

"SOUTH PACIFIC"

A South Pacific Enterprises Production

STARRING: Miss Geynes, Renato Brand, John Kerr, Zuzi de Hall, Ray Whelan, and Nancy Meyers

Produced by ROBERT ADLER

Directed by JOSEPH VOGAN

Photographed by IRVIN SHAMROY, A.S.C.

Color Cameraman PAUL LOCKWOOD

1st Asst. Cameraman LEO BID' CRAWFORD

Special Effects: Effects 1 & 2: ARDOTT A.S.C.

Todd AO: Cameraman S. A. SANFORD

of persons under actual night conditions. To further enhance the effect in the overall scene, Shamroy had all foliage in the background painted black with water-soluble paint in order to lack back the green colors which the green filter would have admitted.

Still another effect, which Shamroy contrived while on location, was that of lagging or diffusing the left and right hand edges of the scene in closeups and two-shots. One of the more controversial photographic effects in the picture, and enough to occupy the spare space at either side of the wide Todd-AO frame and at the same time provide a subtle framework encompassing the players in the center.

The effect was simple to produce, according to Shamroy, who took a clear panel of optical glass, the same size as the special filters, and with a simple spray gun obtained from the property man, applied flat lacquer in an X-eyes pattern, working in toward the center from either side.

Shamroy's photographic achievements in "South Pacific" represent a daring never before attempted by a cinematographer undertaking the filming of a costly production. It was, in a way, a dangerous attempt — dangerous to his reputation, prestige and to his future. This is especially true, when we consider that he embarked on this filming project during most unfavorable weather conditions, and did not have the advantage of dailies to check his work against. During the first few weeks, results were relayed to him by telephone from the studio by Sol Halprin, head of the camera department.

Halprin readily admits to the impatience that prevailed following screening of the first dailies on the picture. But he also was the first to realize Shamroy's resourcefulness and his importance to the production in view of the weather and lighting conditions which the company continued to encounter.

"Shamroy pushed forward and photographed scenes under conditions that

would throw a less-courageous cameraman," Halprin said. "He dared to go on, indeed, he insisted they go on. When storm clouds seriously reduced the light level, he poured artificial illumination onto the exterior sets with booster lights, and with color filters before the lens he made the scenes come out better than had they been filmed in bright sunlight. He deserves a lot of credit."

Shamroy has a keen photographic mind—one of the shapeliest in the industry. And the reason for his great success, perhaps, is that his job never becomes tiring. Each new picture, be it large or small, is a fresh, new challenge—an opportunity to improve upon something he did in his last picture. Inventive, resourceful, and with a superior artistic intellect, he is a true painter-with-light.

"For years I have been 'boring' around with color," Shamroy said, in explaining his uncommon interest in color photography. "We are in an emotional business. I've always figured that color was a psychological ingredient which, when properly added to a scene or picture, can emphasize or build up emotional or dramatic situations."

"I think the secret of successful color photography," he continued, "is not to shoot a scene to make it look as it looks to the eye. You have to put something additional into it—something to give it impact—otherwise the scene can be commonplace if not monotonous. Straight ordinary cinematography is far less-revealing. The dramatic film photographer must have imagination, must be something of a dramatist, and above all have an editorial viewpoint so the various scenes will fit together properly."

"As a painting, well done, can stir you emotionally, so also do scenes painted with light have a similar emotional impact on audiences. The true artists among the so-called 'old masters' put on canvas what they felt—not always exactly what they saw; they embellished and accented those subjects with their own peculiar style of color application and lighting effects. This is what I aimed for in photographing 'South Pacific.'"

Effective outdoor shots can be made with either color or black-and-white film, using side and back-lighting, providing that proper exposure allowance is made and the camera lens is shielded from direct rays of the sun. In general, however, front lighting is best for color photography and it is well to remember that midday, when the sun is directly overhead, is the poorest time to shoot color or black-and-white unless a reflector or booster light is used to counteract the strong shadows produced by the midday sun.

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FILMING A FEATURE IN BORNEO

(Continued from Page 303)

on portions of the floor not directly connected to those on which the actors performed.

The photographers also were hampered by not being able to use a dolly. They had to plan a variety of shots to overcome the limitation of static camera. Lack of space in the small apartments forced the crew to keep the camera in one place for two shots, re-arranging one part of a room to look like another.

For example, in one sequence two actors were supposed to be gazing out separate windows as they talked. Actually only one window was used. Set trim masks and the screen direction of the actors varied, giving the impression in the finished film that two windows were used.

Sound was recorded on two tape recorders. One was battery powered and was used to record "wild" sound for scenes shot in the jungle. The other, which used the generator as a power source, was run in sync with the Newell camera. Later, in Singapore, all sound was re-recorded optically on film.

When the company wanted to photograph the preparation of the soil for the planting of rice, the company again had to bow to native custom. Before anyone was allowed to enter the hillside fields, he had to participate in a ceremony in which a pig and a rooster were sacrificed.

The crew members could never escape the fact that the persons they were filming had been headhunters. The men wore parangs, machete-looking knives, which were used for battle in past years. Clusters of smoke-darkened skulls hung from the rafters of the long houses as grim reminders of past practices.

Before the cameramen could relax in the evening, all exposed film had to be picked and sent down river by speed boat to Sibiu. From there it was put aboard a plane for Singapore or England. Follow-up development of the negative at the Deban laboratories, reports and two printed frames of each take were airmailed to Sarawak, thus affording Zain and Ariel a check on the quality of their camera work.

Requisitioned raw film stock was packed in dry ice and air mailed to jungle location sites from Singapore as needed. The company's supply of color negative was stored in the diesel-powered refrigerator of an ice cream shop in Kapit.

Despite all the precautions that were taken, some film was scratched in the camera. The equatorial heat and moisture had caused the film to expand,

causing minute particles of emulsion to be scraped off in the film gate. Whenever possible, such footage was re-filmed.

As a precautionary measure against the damaging effects of moisture, four exposure meters, including one of Karl Freund's Spectra color temperature meters, were brought along with the camera equipment. Before production was concluded, one of the exposure meters had broken down completely.

After three and a half months' of shooting the company returned to Singapore with 50,000 feet of exposed color negative to show for its effort. The film was edited down to approximately 9,000 feet for both an English and a Malay version.

A spokesman for the company said that his reports indicated Zain and Ariel had completed a noteworthy job of color photography in spite of the difficulties encountered in the jungle.

"Long House" is said to be the most ambitious and costly film ever made by a local company in Southeast Asia, and is the first important picture from that area scheduled for exhibition in world markets.

PROFESSIONAL TITING

(Continued From Page 304)

two cels with the same title imprint. Where yellow letters with red drop shadows are desired, the procedure is as follows: Take a cel with yellow letters and a cel with identical letters in red and place the yellow on top of the red. Shift the cel diagonally until the desired shadow effect is achieved. Tape the two cels together and punch the cel assembly to fit the compound page. From here on, the method is the same as for photographing single cel titles.

An assortment of different effects are possible with hot press titles. To dissolve one title into another, place the title cel over the center hole in the compound and turn on the underexposure lighting. Shoot the title for the length of time it is to appear on the screen. Then, set the automatic dissolve on the camera to dissolve-out the title in the desired number of frames. Press the control button to start the action. The mechanism automatically completes the dissolve-out and comes to a stop. The stop-motion motor is then reversed to back up the film in the camera to the point where the dissolve begins. The second cel is now placed over the hole in the compound and the automatic dissolve is set to dis-

solve-in for the same number of frames as for the dissolve-out. Again, the control button starts the action, and when it is completed the unit stops.

For fading titles in or out, the procedure is slightly different. First, one title is dissolved out. Before exposing the second title, a clear cel is used to eliminate fluctuations in exposure due to cell density. In this work, the underexposure lighting on the stand is performing the job of an optical printer.

There are a number of methods used for passing titles. If the pass is to be east to west, the peg bars on the compound are used. A precise second pass can be made by carefully observing counter registration. Perhaps counters register in 100ths of an inch. For scroll work, the compound is rotated 180 degrees so the peg-bars can be moved north and south.

When scenes are to be made on titles, the stand must be equipped with automatic follow focus, zoom counter and a high-precision lens mount. The procedure is similar to those already described, and the counter is used to keep track of scene positions for the second pass.

Method 2—With this procedure, titles are shot with a camera having good registration, preferably of fixed pilot pin design. Then, titles are superimposed on color prints with an optical printer. There are two variations of this method—the so-called standard procedure and the faster aerial image technique.

With the standard method, titles are photographed with the camera on either a tripod or an animation stand. The camera should have fixed registration pins which duplicate those of the optical printer camera and projector head. When shooting on a tripod, high contrast film should be employed. The print should also be made on high contrast film in order to provide a complementary positive matrix.

When titles are made on an animation stand there is a wider latitude for achieving certain effects. Here a white card is generally used with black letters and a single high-contrast film used in the camera. Photography is done with top lighting and a single pass is all that is required for the master negative. The film is processed and at this stage, zooms, wipes, pans, dissolves and other effects may be carried out.

A special step is required before titles are shot on color print. After the print comes from the laboratory it is placed in the projector of the optical printer and another master is made. This master, when printed, is also used in the optical printer. The second master is necessary in order to keep emulsions facing the camera. If a contact print were used, the emulsions would face in

the wrong direction and the focusing pin positions would be incorrect.

The next steps in the procedure are performed on the optical printer (see Fig. 2). First, a negative or original matte (clear with black letters) is placed in the projector head. A loose magazine is used on the camera and raw stock is inserted behind the original color print in the magazine. The two films should be synchronized by pushing holes through matching frames before running.

After placing all components at 1-to-1 position, the first pass is made of the entire run of titles with the camera. The second pass requires placing the print of the matte (black with clear letters) in the projector head. The master positive color print is removed from the camera and the raw stock is wound back to the original starting point. The equipment is now ready for the second pass. For color titles, filters are used in the projector head and are inserted in a slot between the light and shutter.

The aerial image procedure with an optical printer requires a second projection unit in addition to the regular projector. This aerial projector can be operated separately in conjunction with

the camera or the standard projector. It has a compound movement to permit composing and correction of title positions.

An aerial image projector has certain advantages in title work. It has 1000-foot capacity and minimizes the risk of scratches on masters and traveling mattes since movements are restricted to single films. Then, too, mattes may be run independently with respect to the master print for forward, backward and skip-frame operations. Positions of the matte may be visually composed by observations through the viewfinder. The aerial image projector also increases the capacity for speed and provides greater flexibility and handling ease.

In using the aerial image projector, raw stock is placed in the optical printer camera. The master color print goes into the standard projector head. Traveling mattes, with titles, is placed in the auxiliary projector. The first pass is made with all components interlocked. In the second pass, the aerial image is used but the master positive print in the standard projector is eliminated. Thus, the second pass is made with camera and auxiliary projector interlocked with its complementary traveling matte.

SYNCING CAMERA WITH TAPE RECORDER

(Continued from Page 302)

practical and economical way of doing it.

Our basic equipment is simple: an Akoley camera and a Westrex single-system sound channel. The whole is operated from a 12-volt storage battery. However, because sound recording on this assignment would be mainly music and the singing voice of Miss Anderson, it was felt best results would follow if we produced a master sound track on tape, which would enable us later to cut our film using the tracks of the single-system footage for reference in editing, also for synchronizing the re-recorded track.

Our problem now was to set up a means of synchronizing the camera with the tape recorder during the shooting intervals. The problem was placed before Rangenette, Inc., Newark, N. J. Col. Richard H. Rangenette, head of the company, was known to have developed a method of maintaining sync between a camera and a tape recorder by recording a sync signal on the tape separate from the audio track. This method employed the current frequency driving the camera motor. In our case, however, this would not do because we anticipated that we would be doing most of our shooting with a 12 volt motor driven by a storage battery.

Col. Rangenette came up with a simple

but effective solution: we would use our camera to generate the necessary voltage to supply the desired sync signal on tape. This was accomplished by constructing a small electric generator that could be attached to the external drive shaft of the Akoley camera. (See cat. Page 302.) With the camera operating at 24 fps, the generator delivered a 60-cycle signal of 1.5 volts. This signal was led to a special Ranger recording head installed on the tape recorder which produced a sync signal that exactly corresponded to the camera speed, even when camera speed fluctuated slightly.

Possibility of frequency variations in the power for our tape recorder is no longer a consideration, as the playback speed of the tape is now controlled also by the sync signal.

Since the initial installation described here, Rangenette has equipped cameras for two other film producers with the generator and its attendant fittings, and plans to place the equipment on the market under the trademark Synchronac. Obviously it offers great possibilities in mobile shooting of sound films in the field where conventional power supplies are unavailable.



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WELLMAN WINS "EMMY"

(Continued From Page 307)

zing film receiving the "Emmy" statuette.

In addition to Wellman, four other cameramen were in the running for the photograph "Emmy" this year. They were Norbert Brodine, A.S.C., for "Miss Ashley's Denim" (Loretta Young Show); Robert deGruze, A.S.C., for "The Danny Thomas Show"; George Diskant, A.S.C., for "Voice In The Fog" (Alcoa Goodyear Hour); and William Margules, for "Outlaw" (Hane Gun, Wild Travel).

Cinematographer Lester Sherr, A.S.C., has the distinction of winning the first "Emmy" ever awarded by the TV Academy for the photography of a television film. This was presented to him in March, 1955, for the photography of "I Ching The Storm," a film in the state sponsored "Media" series. The following year William Siskind was the coveted award, and last year Norbert Brodine, A.S.C., won the award for "The Pearl," a film in the Loretta Young Show series.

FILMING UFOs

(Continued From Page 306)

tests have shown that this lens resolves considerably better than the human eye. It comes in a special lightweight mount. When using this lens for filming UFOs, a "slow-motion" speed (48 or 64 fps) is recommended to reduce hand field "camera jump." Lenses in excess of nine or ten inches focal length are not recommended because of limited field of view and the exaggerated "jumping" that results when used on hand held cameras.

The Century 6" f/2.8 lens lens for \$119.50. The 5" f/3.8 Tele-Athlete lens, which could be easily adapted to UFO filming with either of the aforementioned cameras, lens for \$129.50. Both these telephoto lenses, which are available in either standard "C" or Kodak mounts, are available from Century Precision Photographic Equipment, 10659 Burbank, North Hollywood, California.

The standard 3" telephoto lens is recommended for cameras having single objective viewfinders (i. e., where telephoto objectives cannot be added to viewfinder). Several are available with apertures of f/1.9 and f/1.5, both adequate for night photography with a high speed film. Now, these lenses are obtainable for about \$50 to \$70.

When in search of UFOs to film, camera lenses should always be set at

infinity. Also, where possible, points of reference should be included within the field of view—such as power lines, tree branches, distant buildings or mountains, etc. This will help prove the authenticity of the picture record and increase its value for analytical study.

Because some lenses lose some of their resolving power at very large or very small apertures, they should, therefore, be tested at various f-stops to determine their most efficient working aperture.

Camera Speed. When using 3-inch lenses and when the spring-run of the camera is less than 20 feet, we recommend a "slow-motion" setting of 48 frames per second. As already indicated, this will considerably reduce effect of camera transients on the screen.

With 4-, 6-, 9- and 10-inch lenses and when the spring-run exceeds 20 feet, a setting of about 64 fps is advisable. Exposure compensation should naturally be taken into consideration.

While a tripod will certainly steady the camera, its use is considered impractical in filming UFOs because following rapidly moving objects would prove exceedingly difficult, if not impossible with a tripod-mounted camera. Another way to steady the camera is to lean against a wall or hold camera against something solid, like a fence, post, etc.

Film. Standard film for UFO studies is considered to be Kodachrome. Daylight Kodachrome is recommended by some because of more accurate registration of the full color spectrum, while Type A (with #35 conversion filter) is preferred by others because of its greater ultra-violet haze penetration quality, particularly at higher shutters. Both films have a daytime exposure index of ASA 10. This film would not be suitable for night exposures except when the object is unusually brilliant.

Ansochrome is somewhat faster than Kodachrome (ASA 100), which would make it a suitable color film for pre-dawn and after dark exposures. Because of its grainy quality, it is advisable not to use this film for daylight photography, except when extreme depth of field (shooting at f/16 to f/32) is an important consideration.

Black-and-white film is not recommended for daytime use for the photography of UFOs. Where it must be used, a deep yellow, orange or red filter should be placed over the lens to darken the sky.

Tri-X B&W film (ASA 200-400) is desirable for night use only. (Western Cine Service, 114 E. 9th Ave., Denver 3, Colo. offers a B&W film rated at 800 ASA. It sells for about \$3 per 100' not including processing.) With lens opened wide and a relatively slow shut-

ter speed, Tri-X film should register almost anything visible to the eye.

Night photography on the whole, however, is not recommended, as films showing just lights without points of reference, etc., are almost worthless as records for study and analysis. A split-image with optical registration on one side and a spectrum registration from a diffraction grating on the other would be both unique and valuable. One researcher has suggested that a grating be placed within the shutter in such a manner that every other frame would record the spectral lines while the remaining frames would record the visual images.

The use of infrared film has also been suggested as having unique possibilities in the research-filming of UFOs both in daytime and at night.

The perfectionist with the finest of equipment might do well to look into Kodachrome Commercial film, a professional, low-contrast, fine-grain color film which compares favorably in price with regular Kodachrome. It is used by many industrial film producers, because it prints superior and match less "contrast" duplications. However, because of its initial low-contrast, it might not be too suited for UFO work. Also, it is not "waxed" for protection and should be viewed only on a film editor to eliminate possible scratching. With a type #83 filter, this film has a daylight rating of ASA 8. It is comparable to Ansochrome Type 282 professional color film.

Storage of film. If color film is kept on hand for sometime (i. e., several months), it is advisable to store it in a cooler, refrigerator or freezer. Some wrapping will keep it quite well in refrigerators and should prevent the oxidation from deteriorating. Do not refrigerate film after seal has been removed. After refrigeration, let film stand about two hours at room temperature before unwinding and placing it in camera, this will prevent moisture condensation. Color film should never be subjected to extremes of heat or humidity, summer-time being particularly dangerous. And, of course, never put film in the glove compartment or trunk of an en-

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closed automobile except for very brief periods. Use fresh film where possible, and have it processed as soon as possible after exposure. It is recommended that processed film be stored in a cool, dry place.

Filters. This aspect of cinematography has, for the most part, already been covered. Some researchers recommend the use of a haze or skylight filter to reduce excessive ultraviolet haze, particularly at higher altitudes. This filter is unnecessary when Type #85 or #83 filters are used with Type A and Commercial Kodachrome and Anscochrome Type 242.

Exposure Factors. A light meter is an extremely handy accessory when it comes to sky photography. Exposure factors may vary by as much as a factor of four in different regions of the sky at the same time.

In an area with clear, deep blue skies, a fairly good average exposure setting is 1/500 at 48 frames per second with Kodachrome (ASA 10). If the sky is not a deep blue but still relatively devoid of haze and smoke, 1/8 will give good results. Where smog, haze or a very light sky are predominant, the best f-stop to use is about 1/11, at 48 frames.

The above applies to average overall sky conditions only. If the observer consistently faces north, away from the sun (also west in the early morning and east during late afternoon hours), exposure should be increased by one full stop. Conversely, if one faces the general direction of the sun (east in morning, south at midday and west in afternoon), exposure should be decreased by one full stop. It is advisable, also, to increase exposure about one-half stop for every 2500 feet in altitude.

New 16mm cameras with coupled electric light meters (Bell & Howell 200CE magazine load and 240CE roll loading) are naturally ideal for UFO photography, but are limited in lens range to a 2-power telephoto attachment.

Detail Observations. This can be a most important factor. Every detail of a UFO observation should be meticulously and thoroughly recorded in a notebook. After photography is completed, these data should include: specific time and date of observation; detailed description of object(s), including shape, color, direction, duration of sighting, noise (if any), brilliance, etc.; sky and weather conditions (check local Weather Bureau); detailed exposure data—type of film, filter, shutter speed, aperture setting, etc. Names and addresses of any witnesses are also important. Such data should be readily identifiable with the film record.

Concluding. In summing up it is recommended that only the finest film and

laboratory services be used. Professional films and services are often more reasonable than those available to the amateur.

Once the film is exposed, have it processed as soon as possible. (This is especially true of color film.)

It is also worth noting that fine-grain color film, such as Kodachrome and Commercial Kodachrome can be enlarged to 35mm for possible commercial exploitation.

If anything unusual turns up on your film, it is suggested that it be exposed before extensive screening to avoid scratching and projection marks. (16mm color duplicates cost about 11¢ per foot.)

And one UFO researcher has suggested: "Shoot first—and ask questions later." You're liable to waste some film in doing this but it will probably pay off in the long run.

What should you do after a film showing UFO's has been exposed, processed and projected? The best recommendation is to immediately contact one or all of the following research organizations: The National Investigations Committee on Aerial Phenomena (or NICAP, whose director is Maj Donald E. Keyhoe), 1536 Connecticut Avenue, N.W., Washington, D.C.; Crofton Sayers Intelligence of New York, c/o Ted Blocher, 317 E. 103rd Street, New York 26, N.Y.; and/or Flying Saucers International, P.O. Box 35604, Los Angeles 35, California. Where your film is requested for examination, a high-quality duplicate should be made and delivered, or returned by yourself, in the event you wish to submit your original.

This article examines several months of intensive research by the writers into available movies of UFO's 16mm cameras, lenses, films and accessories. We believe this material is as complete as possible considering the time and effort that has been expended. It is our desire that it be of some help to the many photographers both amateur and professional, who are devoting some of their time and their skills toward capturing on film evidence that will ultimately aid in solving the "flying saucer" enigma.

If you're planning a trip into areas where the humidity is high, lay in a supply of silica gel. Use this material to dry your film as soon as unloaded from the camera if you can't have them developed at once. Then wrap them in dry paper and seal in a tin can. If you can't get silica gel, read newspaper or rice until dry and put in can with film. Buy film in tropical packing, and don't open until ready to use.

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TECHNICAL QUESTIONS AND ANSWERS

(Continued from Page 256)

Q Please advise what equipment and setup must be used to photograph scenes transparent and single-blouse film frames with a Bolex 16.16 camera? I have a Bolex 16.16 but have been unable to obtain or build the setup necessary for copying the films and transparencies as projected images. My primary purpose in photographing them is to use them as backgrounds for titles.—L. E. W., Orlando, Fla.

Answer: To accomplish your purpose—make titles with transparency backgrounds in color—first shoot your titles, with the text or letters in white on a black background or title card. Wind the film back in your camera with the lens capped and prepare to shoot the transparencies.

Set up a translucent screen about 11" by 15" in size before your camera. For this use a panel of Matte Acetate 0012" thick. Place slide projector containing transparency (16mm film frame or negative) on opposite side of screen at a distance to secure a projected picture of desired size. A 1000-watt projector bulb should be used with necessary cooling.

device (fan, blower, etc.) With image sharply focused on screen, take a mirror reading from camera side of screen and shoot.—Ray Mercer, A.S.C., Hollywood.

Q For a science-fiction type picture we are preparing to shoot, we wish to create a special lighting effect. The scene in question takes place on Mars where the atmosphere is said to filter the sunlight, and daylight has a general red tint. We wish to achieve this red tint effect in both interior and exterior shots. We have seen the sort of effect we want in Universal International's "This Island Earth," where the atmosphere lighting was predominantly green-blue.

We will shoot our picture in Eastman color. Please tell us how we can get the effect we seek.—F. C. Grossman, Indiana.

The effect you desire can be obtained through the laboratory at the time your film is being processed. Give your lab the details and they can achieve the effect you want in the printing.—Faughn G. Shamer, A.S.C. Associate.

MOVIE SCENES FROM 35mm SLIDES

By NORMA W. BRACKETT

Institute of American Cinematographers

HOW MANY TIMES have you seen a 35mm transparency scene that you wish you had in your movies? Here you slides made with flash that you could not take with your movie camera but wish you had to complete a movie film sequence?

You can copy color slides with your movie camera with not too much trouble. Choose a sharp, well-exposed, horizontal slide that does not portray action. Use a title designed for the professional or of the simple typewriter-card type, or any other means of support, with your telephoto lens moved in as close as possible. You can, of course, use your regular lens plus a post-reflex.

From a glass dealer purchase a piece of optal glass, coated on both sides. Using scotch tape, mount the slide in the center of the glass, and place some insulating material between the glass and the slide (I didn't use insulation on my first attempt and a most unhappy man is missing one slide. The heat of the photoflood lamp blistered the film!).

Make a mask of dull finish black paper larger than the area you think your lens will cover. With a razor blade, and using a Xerox mounting mask as

a guide, cut out a hole in the center of the black paper. With more scotch tape, position this large black mask on the camera side of the mounted slide, carefully matching the hole to the transparency.

Directly in back of the slide place a photoflood bulb in a small reflector or in a reflector made of aluminum wrap. The opal glass eliminates any hot spot, produces no grits, and its white coating does not change the color values of the slide. By taking an exposure reading close to the front of the back-lighted transparency, you will get the proper f-stop reading.

Try it. You may have to fume around a bit to get the correct centering and focusing of your telephoto lens, but it is worth the trouble. Of course, if you have a throw-away focuser or reflex type viewer, half of the work is done for you. The black front mask fools the public, they never know whether the picture is exactly centered or not, for only the lighted slide shows on the movie screen.

A short film length of a copied slide film runs an empty place in an otherwise complete movie, and the average audience will never recognize it as a "stiff".

PHOTOGRAPHIC ASSIGNMENTS

(Continued from Page 280)

LA BREA PRODUCTIONS

- **WALTER STERNER, ASC**, *"Lover Commercial"* (Hank Ludwig, director).
- **HAL McFARLANE**, *"Knowledge for Governor Commercial"* (Hank Ludwig, director); *"Hughes Aircraft Industrial Commercial"* (Jack Frommann, director).

LIVESTRIP PLATHOUSE

- **ALAN STERNBERG, ASC**, *"People Are Funny"* with Art Linkletter (Ly Alkon, director).

METRO-GOLDWYN-MAYER

- **LEONARD ARNOLD, ASC**, *"Solna Service"* (Carl National Prods.) (Joan Vanover, director).
- **ROBERT BRUNNER, ASC**, *"Patty Got"* with Robert Taylor and Cyd Charisse (Nicholas Ray, director).
- **WILLIAM DANIELS, ASC**, *"Cat on a Hot Tin Roof"* (Avon Prods.) with Elizabeth Taylor, Paul Newman and Burt Lee (Richard Brooks, director).
- **GEORGE FOLBERT, ASC**, *"Torpedo Run"* with Glenn Ford, Ernest Borgnine and Dean Jagger (Joseph Perry, director).
- **HAROLD MARGOLIN, ASC**, *"The End of the World"* (Sci. Scapellato Prod.) with Harry Belafonte, Inger Stevens and Mel Ferrer (Ronald MacGrath, director).
- **HAROLD SMITH**, *"Northwest Passage"* with Keith Laidler (Alber Crossland, director).
- **WILLIAM STROUD, Jr.**, *"The Thin Man"* with Peter Lanchard and Pippin Kirk (William Asher, director); *"Langensdorf Commercial"* (Robert Gray, director).

MOTION PICTURE CENTER

- **CHARLES BROWN**, *"The Red McCoy"* (Bronson Wainright Prods.) (By Averybach, director).
- **BLAIR CRANFORD**, *"Whodunnit"* (Dezile Prods.) with Kenneth Tynan and Craig Hill (Various directors).
- **BONNIE DE GRANGE, ASC**, *"The Red Skelton Show"* (Dezile Prods.) with Red Skelton (Bernard Berns, director).
- **BOB BUCKING, ASC**, *"The Tenor"* (Pict. Dezile Prods.) (Jerry Thorpe, director).
- **RYAN MURPHY, ASC**, *"The Last Day"* (Dezile Prods.) with Warner Anderson and Tina Tully (Various directors).
- **JOE NOYER, ASC**, *"Grand Jury"* (Pict. Dezile Prods.) (Alvin Garry, director).
- **ROBERT PITTAGE, ASC**, *"The Callahan"* (Dezile Prods.) with Richard Coughlin (Byron Bolton, director).

PARAMOUNT

- **HAROLD BOSS**, *"I Married A Monster From Outer Space"* with Tom Tryon and Glenn Talbot (Gene Fowler, Jr., director).

- **EDWARD EYCKHARDT, ASC**, *"The Party Crashers"* with Center Stevens and Olanoff Stevens (Edward Grand, director).

- **CHARLES LIPS, ASC**, *"Showdown in Gun Hut"* (New Vision) with Kirk Douglas and Anthony Quinn (John Sturges, director).

- **ALAN TAYLOR**, *"The Troop"* (Graham-Frost, Production Techniques), shooting (Rene) with Van Heflin, Geoffrey Horne and Sylvia Signes (Alberta Lattuada, director).

PARAMOUNT SUNSET

- **JACK MACKINZIE, ASC**, *"Swim Troop"* (Evere Prods.) with Ed Carleton (Various directors).

- **LESTER WHITE, ASC**, *"Ransom"* (Columbia, Inc.) with Jim Davis and Long John Silver (Robert Walker, director).

REPUBLIC STUDIOS

- **EDWARD COLEMAN, ASC**, *"Thugget"* (Mark VII Prods.) with Jack Webb and Ben Alexander (Jack Webb, director).
- **JACK BAILEY**, *"Carnegie City"* (Evere Prods.) (James Nelson, director).

- **BERT GLENNON**, *"Badass Gun"* (Windsor Glen Prods.) with John Payne (Edward Ludwig, director).

- **BENJAMIN KLINE, ASC**, *"Wagon Train"* (Evere Prods.) (Various directors).

- **EDDIE LARSEN**, *"General Electric Theatre"* (Evere Prods.) (Various directors); *"Alfred Hitchcock Presents"* (Evere Prods.) (Don Taylor, director).

- **RAY REYNOLDS, ASC**, *"Supergirl"* (Evere Prods.) (John Brinkley, director); *"Leave it to Beaver"* (Gambler Prods.) with Barbara Hingley and Hugh Beaumont (Norman Tokar, director); *"M Squad"* (Latter Prods.) with Lee Merline (Salary Landfield, director); *"Schlitz Playhouse"* (Evere Prods.) (David Butler, director).

- **JOHN REYNOLDS, ASC**, *"General Electric Theatre"* (Evere Prods.) (Various directors); *"Alfred Hitchcock Presents"* (Evere Prods.) (Various directors); *"The Millionaire"* (Olan Feldman Prods.) (James Melton, director).

- **MARK STERNBERG, ASC**, *"H Squad"* (Haltner Prods.) with Lee Marvin (Various directors); *"The Millionaire"* (Olan Feldman Prods.) (James Sheldon, director); *"Leave it to Beaver"* (Gambler Prods.) with Barbara Hingley and Hugh Beaumont (Norman Tokar, director).

- **ELIAS THOMPSON, ASC**, *"Badass Gun"* (Windsor-Glen Prods.) with Dale Robertson (Earl Bellam, director); *"Special Agent Smith"* (Evere Prods.) (Richard Berlin, director).

- **JOHN WARRICK, ASC**, *"Lee Wyman Theatre"* (Lewman Prods.) with Jane Wyman (Barry Fanger, director); *"Schlitz Playhouse"* (Evere Prods.) (John Brinkley, director); *"General Electric Theatre"* (Evere Prods.) (Harold Dugherby, director); *"Alfred Hitchcock Presents"* (Evere Prods.) (Allan Green, director).

(Continued on Next Page)



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PHOTOGRAPHIC ASSIGNMENTS

(Continued From Page 42a)

- **GILBERT WASHINGTON, ASC**, "Sokked Playhouse" (Crown Prods.) Don West, director.

IKO

- **JOSEPH RING, ASC**, "Verboten" (Globe, Inc.) Samuel Fuller, director.

IKO-PATHE

- **GEORGE DISNEY, ASC**, "Mr. Adams & Eve" (Bridget Prods.) with Ella Lapina and Howard Duff, Richard Kama, director, "All you Gents Theatre" (Four Star Prods.) Robert Flaherty, director.

- **JOE NORMAN, ASC**, "Richard Diamond, Private Detective" (Four Star Prods.) with David L. Lander, Richard Widmark, director, "Detective Tumbow" (Pilot, Four Star Prods.) Tim Lary, director.

- **GUY ROG, ASC**, "Trackdown" (Four Star Prods.) with Robert Clay, Don MacDougall, director, "Dick Powell's Love Story" (Four Star Prods.) with Dick Powell, Robert Gordon, director.

- **HENRY SORAP, ASC**, Bayer Aspirin commercial (Edward Bond Prods.) Arthur Pennock, director.

NAL BOACH STUDIOS

- **EDWARD FRICKERALE, ASC**, "The Gale Storm Show" with Gale Storm, Norman MacLeod, director.

- **REX WINTER, ASC**, "The Last Minute" (Wm. Burke Prod.) with Robert Loggia and Eliza Pasko, Louis W. Burke, director.

20TH CENTURY-FOX

- **CHARLES CLARK, ASC**, "The Highway" (De Luxe color, CinemaScope) with Robert Mitchum and Mae West, Richard Powell, director.

- **TOBY TYLWIS, ASC**, "The Shooters" (2nd Unit).

- **MILTON KRASNER, ASC**, "A Cotton Snake" (CinemaScope & Color) with Romano Russo and Christine Carver, Jean Negulesco, director.

- **JOE MACDONALD, ASC**, "The Ball Room Kid" (CinemaScope) with Hugh O'Brian and Dolores Michaels, Gordon Douglas, director.

- **WILLIAM MILLER, ASC**, "The Diary of Anne Frank" (CinemaScope) with Mollie Parkes and Joseph Schildkraut, George Stevens, producer-director.

- **WALTER STRINGS, ASC**, "The Last Temptation of Christ" (CinemaScope) with Richard Gere and Audrey Hepburn, Paul Lindra, director.

- **KARL STRONG, ASC**, "The Fly" (CinemaScope & Color) with Al Robison and Patricia Owens, Kurt Neumann, director.

UNIVERSAL-INTERNATIONAL

- **ARTHUR ARLINE, ASC**, Ford commercial "We Canas, America."

- **BENJIE CLAMBERG, ASC**, Ford and Dodge commercials, Jack Donohue, director.

- **RONALD MEYER, ASC**, "One Step Beyond" (Pilot, John Newland, director, "Mystery in the Night" with John Farrow and Joanna Moore, Jack Arnold, director.

- **CLIFFORD STONE, ASC**, Pepsi Cola commercial "Daisy's Arson, director, Marlboro commercial "We Canas, America."

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Eastman color film for 16mm cameras.

A NEW EASTMAN professional reversal color film for general motion picture production was demonstrated last month before the Los Angeles meeting of the Society of Motion Picture and Television Engineers.

Known as Ektachrome Commercial Film, Type 7255, it is a camera film designed to provide a low contrast original from which color release prints of good projection quality can be made. Such prints can be made directly onto Eastman Reversal Color Print Film, Type 5289 (16mm) or by first making a color intermediate on Eastman Color Interpositive Film, Types 5270 (35mm) and 5270 (16mm) and printing this intermediate onto Eastman Color Print Film, Types 5382 (35mm) and 5382 (16mm).

The low-contrast original is not intended for projection; its contrast is purposely low so that the contrast obtainable in its print is comparable with the contrast of a good original made on Kodachrome Film, Daylight Type and Type A.

Ektachrome film is balanced for tungsten illumination at 3200K. When other light sources are used, correction filters are required in addition to filters for correction of light source quality, color compensating filters may also be required in order to correct for slight differences in color balance from one emulsion to another. This will be of value in printing of Ektachrome Commercial originals onto Reversal Color Print Film, or in making a color intermediate, since it will minimize the changes required in the printer filter pack, especially when the original consists of footages from different emulsion numbers. When a particular emulsion requires a compensating filter the appropriate filter is indicated on the side of the film carton directly below the emulsion number.

The established ASA exposure index for the new Type 7255 Ektachrome color film is Tungsten 25 and Daylight 16. A Kodak Wratten Filter

No. 85 must be used with the film for daylight exposures. It is suggested that the exposure data above be used as a guide, in view of the fact so many different methods exist for taking exposure meter readings.

Where possible, it is advisable for those contemplating the use of this new color film to make a series of tests with a hundred-foot roll to establish the desired exposure level before using the film in production work.

Insofar as the lighting contrast should be considerably lower than that used for black and white photography. The ratio of foot-candle to key-light should be from 1-to-2 or 3 and should seldom exceed 1-to-4 except where some special effect is desired.

The new Ektachrome 16mm color film is available in 100, 200, and 400 foot rolls (change footage-numbered), and 1200-foot rolls on special order. The 100- and 200-foot rolls are daylight-loading; the 400- and 1200-foot rolls on T-covers for darkroom loading.

The film is sold without the processing included in purchase price. When it is sent to a Kodak lab for processing, payment for processing must accompany the film. Also, since Ektachrome requires special processing, it should be clearly identified when sent to the laboratory, preferably by marking it in the original carton. Ektachrome perforated on one edge will not be given special treatment in processing. Also, film to which a magnetic stripe has been applied will not be accepted for processing.

The following Kodak Processing Laboratories are equipped to handle this film:

Eastman Kodak Company, Kodak Park, Bldg. 6A, Rochester 4, N. Y.; Eastman Kodak Company, 1712 South Prairie Avenue, Chicago 16, Illinois; Eastman Kodak Company, 155-35 Roosevelt Avenue, Flushing, L. I., New York; Eastman Kodak Company, 1017 N. Las Palmas Avenue, Hollywood 38, California.



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WHAT'S NEW

(Continued From Page 238)

8mm Camera Lens

Affording 125% more field coverage than the regular 10mm lens of 8mm cameras is a new Bell & Howell 13.7mm wide-angle attachment lens available for all B&H Wildhe and Monterey 8mm cameras. Price, including filter-holder and retaining ring for size 5 filter is \$22.95. Attachment threads directly into lens barrel of all B&H Super Dual 8mm cameras, requires no exposure increase, and yields sharp pictures at subject distances as close as 6 inches. A viewfinder adapter kit, priced at \$2.50, is also available for cameras already in the field.

WALTER STRENCE ELECTED

(Continued From Page 282)

President of the A.S.C., six officers and five members of the Board of Governors, were elected. They are: Arthur Edson, 1st Vice-president; Hal Mohr 2nd Vice-president; William Daniels 3rd Vice-president; Arthur Miller treasurer; Robert Pitzack, Secretary; and Robert de Grasse, Sergeant at Arms.

Members elected to the Board of Gov-

ernors for a three year term, are Joseph Brice, William Daniels, George Folsey, Lee Garmes, and Walter Stence.

Alternate members elected for terms of one year are: Sol Hejrlin, William Miller, Harold Rosson, Sol Polito, Philip Tannura, Joseph MacDonald, Harry Perry, John Arnold, G. Wallace Keller, and Paul Epler.

TEN PRINTING METHODS

(Continued From Page 162)

basic techniques: 1) the use of color internegative, and 2) use of reversal color film. Diagrams 7, 8, and 9 illustrate the procedures where color internegative is employed. Diagram 10 illustrates two alternatives in which reversal color film is used, either for direct from-original reversal printing or for an intermediate print film which offers greater opportunity for adding optical effects, also, as when a color internegative is used, the original film is protected against the wear and tear of repeated printing operations.

The procedures charted and described here deal with the most widely-used standard color film. However, as Movielab's technicians point out, their laboratory is set up to handle any brand color film available today or that may be developed in the future.

Pan-handle for Car-mounted Camera



"AIR SIDE" CAMERA MOUNT—Joe Wadyma, General Motors Photographic cameraman, takes a running for "An American Highway Landscape," a motion picture recently produced by General Motors for the Board's Exhibition. The camera is on Aeroflex 11mm, with a Mitchell finder, hand-mounted on a special platform to cushion the driver's eye view of the road. The long pan handle (shown) is operated from inside the stream 1936 Buick with air suspension for smooth, stable shooting. Wadyma and director-cameraman Don Harburn took their specially designed "Air Side" camera from New England to Florida.

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